Stockholm’s Engine of Change: Cyclists Remaking Themselves and Their City

Elena Peterlana
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ELENA PETERLANA


Scientific abstract:

Today we are experiencing an urbanization process at a speed never acknowledged before. With mobility accounting for a considered share of the environmental impact of these expanding urban ecosystems, the bicycle assumes an increasing fundamental role in the framework of sustainable development. However, despite gaining recognition as valuable sustainable transportation alternative, it is still marginalized within a current car-centered society. Collective action around cycling has therefore started to mobilize in order to defend cyclists’ interests and needs. Yet, there is still limited research on its role on affecting urban development, as well as on its impact on the people who engage in such action.

This thesis aims to fill this research gap by focusing on how collective action around cycling has shaped city and persons. First of all, the collective action framework has been delineated by building on different authors contributions: in this thesis, collective action has then been defined as an action of the collectivity through the efforts of both single individuals and organized groups. Three sub-questions have consequently been investigated: how collective action changed its own practitioners, transforming their capabilities and self-perceptions; how collective action has been shaped itself by cyclists group identity; and how such action has impacted the development of the city of Stockholm, taken as case study. The methods applied include a literature review to provide relevant background, followed by a qualitative research based on semi-structured interviews. The informants involved were selected based on their engagement in the collective action of the Stockholm scene, taken as case study due to its rather rapid process and quest in becoming a more bikeable city. By analyzing their experiences and answers, the study results provide a new perspective on the impact of collective action, focusing in particular on the way group identification can strengthen and direct this engagement and on how the latter has contributed to a more personal development of its practitioners.

The results build up on and also confirm previous findings in relation to dynamics typical of collective action and group identity, applying a more case-related perspective. In regard to its practitioners, collective action has been found to have an impact by enhancing a feeling of empowerment, freedom and community, affecting also non-practitioners and benefiting the society as a whole. Group identification resulted to play a significant role in shaping the different kinds of engagement, for example by focusing on contrasting the car hegemony within the urban system; however, consistent differences were found between high and low identifiers. For what concerns the urban development of Stockholm, collective action has been found to have shaped the city in regards to infrastructure, policies and organization, thanks to a growing network and political engagement of different actors and organizations. The deriving increased awareness and recognition represent a core starting point for the achievement of future goals.

Keywords: collective action, cyclists, group identity, sustainable development, sustainable urban mobility, Stockholm

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Stockholm’s Engine of Change: Cyclists Remaking Themselves and Their City

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Popular scientific summary:

With urbanization spreading at an unprecedented speed, urban mobility becomes a key future challenge in the framework of sustainable development. This is why the bicycle is gaining an increasing fundamental role as urban transportation alternative. However, such role is still marginalized within a current car-centered society. Collective action around cycling, in this thesis defined as the action of the collectivity for the collectivity through the efforts of both single individuals and organized groups, has therefore started to mobilize in order to defend cyclists’ interests and needs. Yet, there is still limited research on its role on affecting the development of a city, as well as on its impact on the people who engage in such action.

This thesis aims to fill this research gap by focusing on how collective action around cycling has shaped the city and its people. In order to address this research question, three sub-questions have been developed: how collective action changed its own practitioners, transforming their capabilities and self-perceptions; how collective action has been shaped itself by cyclists group identity; and how such action has impacted the development of the city of Stockholm, taken as case study due to its rather rapid process and quest in becoming a more bikeable city. The methods applied include a literature review to provide relevant background, followed by a qualitative research based on semi-structured interviews, conducted thanks to the collaboration of different actors engaged in the collective action scene of Stockholm. By analyzing their experiences and answers, the study results provide a new perspective on the impact of collective action, focusing in particular on the way group identification can strengthen and direct this engagement and on how the latter has contributed to a more personal development of its practitioners.

The results build up on and also confirm previous findings in relation to dynamics typical of collective action and group identity, applying a more case-related perspective. In regard to its practitioners, collective action has been found to have an impact by enhancing a feeling of empowerment, freedom and community. More specifically to the empowerment dynamic and the promotion of values such as equality and inclusion, collective action has been found to affect also non-practitioners, benefiting the society as a whole. Group identification resulted to play a significant role in shaping the different kinds of engagement; however, consistent differences were found depending on the level of identification. For what concerns the urban development of Stockholm, collective action has been found to have shaped the city in regard to infrastructure, policies and organization, thanks to a growing network and political engagement of different actors and organizations. The deriving increased awareness and recognition represent a core starting point for the achievement of future goals.

Keywords: collective action, cyclists, group identity, sustainable development, sustainable urban mobility, Stockholm

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## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>CO2</td>
<td>carbon dioxide</td>
</tr>
<tr>
<td>I (n)</td>
<td>interviewee (number of reference of the informant)</td>
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<tr>
<td>LEZ</td>
<td>low emission zone</td>
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<tr>
<td>PA</td>
<td>particulate matter</td>
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<tr>
<td>PM2.5</td>
<td>fine particulate matter with a diameter of 2.5 μm or less</td>
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<td>UVARs</td>
<td>urban vehicle access regulations</td>
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<td>[...][word]</td>
<td>the square brackets are used to indicate a cut-out part of the sentence, or a missing word or letter that was replaced by the writer for ease of comprehension of the reader, without altering the meaning of the sentence</td>
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1. Introduction

This thesis aims at identifying and analyzing how collective action for improved cyclists’ conditions has shaped both the city and its people. By focusing on the case study of Stockholm, the goal of the research is therefore to determine and describe the effects that collective action, in the shape of different kinds of engagement, has on both its practitioners and the urban context. The ambition is to set a potential first step towards understanding the dynamics and the potential of both collective action and cycling itself as tools to improve the current and future conditions and well-being of the urban ecosystem and its dwellers.

This aspiration derives from the rising significance that urban contexts have been gaining in the last decades, making urban expansion and its sustainability one of the main challenges of our imminent future. Indeed, if on hand the human impact on the environment has been increasing ever since the first industrial revolution, it has been specially in the last decades that we experienced extreme and radical changes in ecosystems and the climate. One of these major changes, amplified by a population growth without precedents, is the process of urbanization: by 2030 the urban population is expected to rise to almost 5 billion people, 68% of the world population, with an increase in urban land cover of 1.2 million km² (Seto, et al., 2012, p. 16083; United Nations, 2007: 23–4). As the share of population living in urban areas escalates, the role played by the development of the latter “becomes critical for national development, for poverty reduction and for improvements in the well-being of the population in both urban and rural areas” (Sheng, 2010, p. 134). Within such framework, transportation represents one of the main challenges and, because of the exponential growth of the urbanization phenomena, it will be increasingly fundamental to tackle. Cities already consume between 60 and 70 percent of the world’s energy supply, while their emissions account for 70 to 80 percent of the total global carbon emissions (Tsay and Herrmann, 2013). For what concerns more specifically the prospect of urban transportation, its emissions are expected to rapidly rise, increasing by approximately 50% between 2000 and 2030; predictions show an even faster rise in certain developing countries, “due to a combination of increases in personal travel and goods movement, coupled with continued heavy reliance on fossil fuels for transportation energy” (Shaheen and Lipman, 2007, p. 6). Worldwide personal transportation represents a considerable amount of such increment, being expected to increase by 1.7% every year until 2050 (Shaheen and Lipman, 2007, p. 6).

The urgency of the environmental impact of urbanization is recognized worldwide and by the city of Stockholm itself, which sees in the development of efficient means of transport and well-designed urban planning two key aspects to address the challenge (City of Stockholm Traffic Administration, 2012). However, despite being an important alternative solution for individual transport thanks to “its significant reach, readiness to ride, easy operation and relatively high cruising speed” (Kalasova, Krchova, 2011, p. 21), bicycles suffer from an unequal distribution of dedicated space on urban streets.

Cyclists’ movements have consequently developed worldwide to speak out for their needs, and Stockholm is no exception. Collective action represents, to this regard, a powerful tool for a bottom-up approach in addressing this issue. Based on a decision-making process that requires networks and flows of information between individuals and groups in order to reach a shared goal (Adger, 2009, p. 389), collective action aims to increase the likelihood of a goal that is desirable by all the agents involved in such process (Medina and Luis, 2009). These are the key elements that are found in the variety of facets of the definition of collective action. Yet, the same term can be extended to “actions undertaken by individuals or groups for a collective purpose” (Brunsting and Postmes, 2002, p. 527). The requirement of collective action to be operated by the coordination of a multitude of actors does not sussit anymore, as long as its goal is for the benefit of the collectivity as a whole. In support to this definition, acts such as sabotage, civilian disobedience or simply taking care of common interests in a community, can be undertaken by a single individual, and still be intended and used as a tool to achieve a collective outcome (Brunsting and Postmes, 2002, p. 527; Oliver and Pamela, 1984, p. 602; Postmes and Brunsting, 2002, p. 290). This broader definition, portraying collective action as an act perpetuated by either an individual or a group of actors in order to achieve a collective outcome, is the one adopted for this research; indeed,
cycling itself can be an act of adhesion to certain values or ideals, supporting the cause and/or demonstrating not only the need for improved cyclists’ conditions, but also the presence itself of a determined category of the community. Cycling is a practice that, when undertaken as a mean of transport, automatically involves a public visibility: therefore, without necessarily being organized, the act itself is already a support to a collective purpose, as well as a practice that has a direct impact on the society as a whole, as described in Section 2.3.2. This thesis will then define collective action around cycling as the action of the collectivity for the collectivity through the efforts of both single individuals and organized groups.

Collective action is a theoretical framework that can be applied within different fields. However, despite its potential, there is still limited literature concerning its application towards sustainable transportation, also due to the recent development of and the deep economic, social and environmental changes within the urban environment. Current literature - that will be further deepened in the background (Section 2) - rather focuses on cycling, in particular on its role as a sustainable urban mobility alternative and its benefits for the improvement of the urban citizens’ living conditions (OECD, 2004; Fernández-Heredia, Monzón and Jara-Díaz, 2014; Parkin, 2012), to the point that cycling and walking have been considered as the top of the hierarchy of transportation modes within the urban context (Marshall, 2001). This is why the following literature review will present the findings of different authors highlighting its potential. Indeed, after acknowledging the challenges of cycling in an analysis of previous research, ranging from mental and physical safety of the cyclist to the exposure to pollution and episodes of road rage (Nilsson et al., 2017, p. 32-33; Balkmar, 2014, p. 32.), a variety of opposite argumentations defending the validity of this transportation practice will be illustrated. The focus of the referenced research will range from the bicycle’s efficiency and cost effectiveness (Macmillan et al., 2014; Gössling and Choi, 2015), to its environmental impact (Bussière et al., 2010; Lindsay, Macmillan, and Woodward, 2010; Walsh et al., 2008; Woodcock et al., 2018), and its social and health benefits (Hosking et al. 2011; Tainio et al., 2016, p. 233; de Nazelle et al. 2011, p. 767). The aim of the chapter is to offer both scientific-based perspectives on the pros and cons of this sustainable urban mobility alternative.

For what concerns cyclists’ engagement, different authors have previously focused on the connection between the bicycle and different social movements, for example the feminist, environmentalist, socialist and anarchist engagements (Horton, 2009). The bicycle has in fact been a tool and symbol for fights to which it played a substantial role, from empowering women to providing a green transportation option to environmental activists. As the car-oriented urbanization of the last decades led to a rise in difficulties and sense of oppression of cycling (Parkin, 2012, p. 306), in different urban contexts cyclists have started to be perceived and defined as a minority (Aldred, 2014; Horton and Parkin, 2012; Prati, Marín Puchades and Pietrantoni, 2017): as a consequence, a stronger group identity around such practice has been shaped, and developed in engagement to defend the interests and improve the conditions of the marginalized road users categories (Horton and Parkin, 2012). One of the most recent and relevant studies concerning specifically the case study of Stockholm is the one by Dag Balkmara and Jane Summerton, who aimed to “describe and analyse the ways in which bicycle activists and advocates in Sweden construct their politics and practices” (Balkmar and Summerton, 2017, p. 151). The findings of the paper support the view of bicycle activism as a mean to practice cycling citizenship, despite the different drivers, focuses and tactics of the organizations considered by the study, and provide a conceptual linkage between new social movement theory and activism in a more general sense.

Despite the relevance of the paper for the aim of this thesis, it is also evident how, together with the previously mentioned studies, there is a gap in the field addressed by this research. Indeed, while previous studies have so far focused either on the impact of cycling on the society or on the impact of engagement and collective action on defending people interests (with the bicycle being considered mainly as a tool), no extensive research has been found on the impact that engaging in the act of cycling and its promotion has on the self-perception and capabilities of its practitioners, and consequently the way it can affect the city development. This research aims to fill this gap by identifying how such
engagement has affected its practitioners and how collective action has been shaped itself by the group identity that developed around the different movements dedicated to improve cyclists’ conditions in Stockholm, finally analyzing how these dynamics impacted its development. The focus is therefore more on collective action and group identity as engine and tool for people to change and to promote change.

The main research question has then been developed as follows:

“How has collective action around cycling shaped the city and its people within the case study of Stockholm?”

Three sub-questions have been elaborated in order to properly address the different aspects that the main research question entails:

- How has collective action changed its own practitioners, transforming their capabilities and self-perceptions?
- How has cyclists’ group identity shaped collective action?
- How has collective action transformed the development of the urban context of Stockholm, both from an infrastructure and policy perspective?

In order to answer the above mentioned questions, the thesis will first go through a literature review articulated in the background (Section 2). The chapter will collect and analyze relevant previous in order to build the discussion on scientific-based knowledge to contribute to the research in the field. A section dedicated to the methods applied within the research will follow (Section 4), based on qualitative research conducted through semi-structured interviews with different individuals involved in association promoting, supporting and/or deafening cyclists’ interests in Stockholm. The theoretical framework (Section 5), within which the analysis of the data will take place, is then going to be explained, defining theories and terminology. After presenting the results of the interviews (Section 6), the mentioned analyses of the data will be elaborated in the discussion (Section 7), finally followed by the conclusions (Section 8) and acknowledgements (Section 9).
2. Background

2.1. Sustainable urban mobility: the role of bicycles in an expanding urban environment

2007 represents a watershed moment in the human history: for the first time, the number of people living in urban areas overtakes the share of people living in rural contexts (United Nations, 2015, p. 7). This landmark is only the starting point of a process, urbanization, that is forecasted to keep growing: by 2030 both the urban population and the urban land cover are expected to rise, with up to 1.35 billion people living in an expanding urban context that will reach an extension of 1.2 million km² (Seto, et al., 2012, p. 16083). This is why urban development represents one of the main challenges of our imminent future. As the share of population living in urban areas increases, the role played by the development of the latter “becomes critical for national development, for poverty reduction and for improvements in the well-being of the population in both urban and rural areas” (Sheng, 2010, p. 134).

Defining and ensuring the sustainability of such process is urged not only by the high pace at which urban ecosystems are growing, but also by the impact they are already having on a global scale: cities consume between 60 and 70 percent of the world’s energy supply, while their emissions account for 70 to 80 percent of the total global carbon emissions (Tsay and Herrmann, 2013). The repercussions on the climate result in an increase of both temperatures and frequency and magnitude of extreme conditions, with the warmer data found in the urban contexts (Grimmond, 2007). For what concerns more specifically the prospect of urban transportation, its emissions are expected to rapidly rise, increasing by approximately 50% between 2000 and 2030; predictions show an even faster rise in certain developing countries, “due to a combination of increases in personal travel and goods movement, coupled with continued heavy reliance on fossil fuels for transportation energy” (Shaheen and Lipman, 2007, p. 6). Worldwide personal transportation represents a considerable amount of such increment, being expected to increase by 1.7% every year until 2050 (Shaheen and Lipman, 2007, p. 6).

However, mobility is not only a matter of environmental impact: since it plays a major role also in an economic and social perspective, the intrinsic interdisciplinary nature of the concept of sustainability becomes essential to fully understand its impact and relevance on different scales. The importance of the consideration of all the three economic, environmental and social aspects when referring to urban mobility is recognized also by the OECD, who defines sustainable transport as the one that “allows the satisfaction of the basic accessibility and mobility needs of people, companies and society, so that it can be compatible with human health and the equilibrium of the ecosystem, promoting intra and inter-generational equality” (OECD, 2000 and Mourelo, 2002). The integration of the social, economic and environmental dimensions becomes fundamental to both identify and evaluate sustainable mobility alternatives - as the provided theoretical framework will allow us to conclude. Among the latter, non-motorized transportation modalities are being scientifically evaluated and recognized as valuable alternatives, and the bicycle is one of them (Litman and Burwell, 2006).

2.2. Bikeability: the role of the bicycle for the development of a sustainable urban environment

In both developed and developing countries, the predominance of a car-focused urban planning has shaped cities by prioritizing road and private transport over non-motorized and public alternatives (da Silva, da Silva Costa and Macedo, 2008; Emanuel, 2010; Parkin, 2012), taking the place of what, until the advent of cars, was one of the main transportation modes: the bicycle. Horton argues that the economic boom and escalation of motorization that followed the Second World War led to a monopoly of the car in the imagination and projects of everyone, from the common citizen to the governments and their policy and urban planners, with a strong association with freedom, relegating bicycles to a
perceived inferior or secondary role in the landscape of mobility - and becoming mainly associated with the poor, women, children and leisure time (2009, p. 8, 18).

Regardless of the modest recognition received in the modern era, bicycles have now been scientifically recommended as part of the solution for the improvement of the urban citizens’ living conditions (OECD, 2004; Fernández-Heredia, Monzón and Jara-Díaz, 2014; Parkin, 2012), to the point that cycling and walking have been considered as the top of the hierarchy of transportation modes within the urban context (Marshall, 2001).

Despite the drastic and consistent changes cities have gone through in the past decades, the fact that cycling has re-gained recognition as valuable clean and sustainable mode of transport is allowing it to be upgraded from the leisure and sport practice status it was confined to for the past century (Parkin, 2012, p. 314) to key element of inter-modal plans for sustainable urban travel (OECD, 2004); the shift can be attributed to a variety of reasons with different authors focusing on them, from the counterbalance effects of the bicycle on health issues related to sedentary urban lifestyles and motorization externalities (Fernández-Heredia, Monzón and Jara-Díaz, 2014; Saelens et al., 2003) to improvements on the general quality of life (Parkin, 2012 p. 314). However, the way cities are shaped can hinder the recovery of this sustainable tool, as the built environment drastically affects the bikeability within the urban context (Parkin, 2012; Winters et al., 2013; Wahlgren and Schantz, 2014). Therefore, there is a direct connection between answering cyclists’ needs, such as investments in cycling infrastructure or policies, and the upswing of this transportation mode (Parkin, 2012). The marginalization process that the bicycles have gone through in the second half of the twentieth century created an environment hostile for cyclists (Parkin, 2012, p. 306), but now its role is being revalued, the needs of cyclists are starting to be listen to and there is a rise in the engagement in defending their interests and improving their conditions, leading towards a change.

2.3. Challenges and benefits

Individual habits play a major role in shaping cities and their future. The city itself can, on the other hand, shape behaviours and facilitate sustainable patterns by encouraging and supporting sustainable urban mobility (Kazhamiakin et al., 2015, p. 1). It could then be interpreted that the first steps towards these needed changes, as well as duty of a society based on equity and inclusion, consist in listening and understanding those directly concerned.

Indeed, as with all other kinds of transportation, when considering taking a bike the city dweller is faced with a balancing of pros and cons: although its benefits for physical exercise and its environmental sustainability have been scientifically proven to overtake those related to the use of a car (Dora, 1999; Dora et al., 2000; Gärling and Schuitema, 2007; Jain and Guiver, 2001; Jones and Hervik, 1992; Wootton, 1999), it is compulsory to acknowledge for a balanced analysis that the choice to take the bike also involves exposure to risks and disadvantages: these are weighted by the individual and represent an obstacle to a greater diffusion of this practice. Moreover, the perceptions of the latter varies between cyclists and potential ones - namely travelers interested in cycling but who do not already cycle regularly. Such differences in perception result in consistent distinctions in how each individual evaluates these variables, but research has shown that both groups value convenience and utility of the bicycle as significant elements, outweighting challenges such as safety when compared to other modes of transport (Piatkowski and Marshall, 2015). Furthermore, different challenges and benefits are not only perceived but also affect differently each individual, shaping their daily life and behaviours. A clear example is the study conducted by Björklund and Mortazavi, highlighting the impact of bicycle environments on the estimation of travel time savings (2013).
The aim of this section is to present both the main issues and advantages of this sustainable urban mobility alternative, not only to fully comprehend the impact of cycling on both the single individual and the society as a whole, but also to understand the drivers of activism and engagement to defend cyclists’ interests.

2.3.1. Challenges

Swedish media coverage presents a variety of examples of conflicts in traffic-dense environments, reporting hatred episodes against cyclists and about their alteration with both car drivers and pedestrians (Balkmar, 2014, p. 32). Violence against this specific category of road users has been described as “deeply embedded within larger gendered structural formations of mass motorism and traffic space” (Balkmar, 2014, p. 32), and their unique position as both vulnerable and exposed road users while potentially dangerous and undisciplined puts them in a peculiar position, subject of what has been defined “‘hatred’: discursive and even physical violence directed towards cyclists for taking up too much traffic space from motorists” (Balkmar, 2014, p. 32).

Safety, both mental and physical, does not only regard episodes of road rage, but it also represents a main issue when it comes to injuries and fatality. A need for strategic preventive measures resulted from an estimation of increased traffic in Stockholm, reporting how bicyclists already present a much higher risk of injuries risk (29 times) and fatality risk (10 times) when compared to car drivers (Nilsson, et al., 2017, p. 30). Further research focuses on the possibility that such risks, if not addressed properly, could even outweigh the health benefits of cycling, including postponing premature deaths (Nilsson et al., 2017, p. 32-33). On the other hand, despite the lack of standardized, transferable data on exposure to risk of cyclists, and despite the deriving consistent differences in results in related studies, this challenge could be overtaken by proper cycling infrastructure, as it has been proved to play a major role in the prevention of crash risks (DiGioia et al., 2017). Interventions on the other road users also affect the risk exposure of cyclists, for example by reducing air pollution and chances of injuries (de Nazelle A, et al. 2011). Another crucial aspect of infrastructure in regards to the challenges of cycling is played by parking lots and signals for directions, whose absence could represent an additional constraints that cyclists are faced with.

Finally, there are challenges independent from the urban context, such as weather, distance coverage and carried weights, and therefore cannot be addressed by either infrastructure nor policies pro-cycling, but that can be either way facilitated - for example, by using an electric and/or cargo-bike.

2.3.2. Benefits

Various studies have reported a general propensity towards supporting alternative transportation modes, such as cycling, compared to the mostly used car commuting option (Bussière et al., 2010; Lindsay, Macmillan, and Woodward, 2010; Walsh et al., 2008; Woodcock et al., 2018), especially thanks to the consistent reduction in CO2, PM2.5 and PA. A switch to the use of bicycle and public transport has been found to contribute up to 9% of the reduction of total urban emission, reaching 1.8% when considering the global emissions (Bussière et al., 2010).

While the environmental positive outcomes are more immediate to evaluate, thanks to the consistent reduction in air pollution and transport greenhouse gas emissions (André and Rapone 2009; Bussière et al., 2010), there is a variety of other benefits that would derive from a mode shift to cycling, ranging from health, social, to equity benefits (de Nazelle et al. 2011; Hosking et al. 2011). For example, increased physical activity and reduced noise and stress have been found as direct effects of cycling on the individual and social health and general wellbeing (Macmillan et al., 2014, p. 335). Such improvements result in a consistent reduction in health expenditure (Gössling and Choi, 2015; DiGioia et al., 2017; Lindsay, Macmillan and Woodward, 2010), deriving among others from a connection observed in different urban contexts between an increase in non-motor transportation alternatives and
the enhancement of long-term economic sustainability of the health services providers (Lindsay, Macmillan and Woodward, 2010; Taddei et al., 2015).

More specifically from an economic perspective, the mentioned savings determined by the shift in the urban mobility would be such as to single-handed economically justify investments towards infrastructure change in favor of the bicycle (Macmillan et al., 2014 p. 341). Furthermore, Gössling and Choi suggest to take into account that the cost of car driving is likely to increase in the future, while the cost of cycling shows signs of decrease (2015).

The above mentioned benefits have been put in comparison with the challenges and risks deriving from cycling reported by previous research: one of the main concerns regarded increased exposure to road injuries, but proved to be outweighed by the health benefits related to cycling (Lindsay, Macmillan and Woodward, 2010, p. 54). The same result applies to studies that evaluated the trade-off with the exposure to air pollution, showing that the health benefits “outweighed the harm [...] in all but the most extreme air pollution concentrations” (Tainio et al., 2016, p. 233). Moreover, it is suggested that further potential trade-offs depend on related policy implementation (de Nazelle et al. 2011, p. 767) and an increase in bicycle use could potentially lead to a decrease of road traffic accidents (Taddei et al., 2015), as well as exposure to air pollution.

Finally, in regards to the above mentioned equity perspective, the cost effectiveness of cycling has been identified as potential tool to increase equitable access to jobs (Hosking et al. 2011). Indeed, bicycles represent an affordable alternative to cars and other motorized transportation modes, thus overcoming financial inequalities in the transportation sector - as outlined for example by Jones and Novo de Azevedo in their study on the transformative role of the bicycle in Brazil (2013). Improved facilities for bike commuters would also mean a better network, connecting less advantaged neighborhoods to the city center and wealthier areas of the urban context, potentially evening the related discrimination and gentrification dynamics, as well as resulting in more employment opportunities. In fact, bicycles and social equality have been strictly linked in different studies, starting from the connection between gender equality and the bicycle as a tool of independence and emancipation: a poor infrastructure or policies hindering cycling commuting can result in constraining women's participation in transport cycling, and consequently inhibiting all the benefits that derive from the bicycle as equality and empowerment tool (Prati, 2018). It is also argued that policies can affect another important social aspect, namely the stigma on cyclists, and that they have the power to promote the status equality of those who rely on an alternative transportation mode in a car-focused society (Simpson, 2007).

2.4. Cyclists’ engagement

The variety of challenges and benefits presented emphasises the connection between sustainable urban mobility and equality, with infrastructure and policies playing a major role in ensuring fair conditions for all the road users. Cyclists, a rising minority of the latter, face challenges that, if properly addressed, result in a benefit for the society as whole, regardless of the transportation mode chosen by the single individual. Focusing on their needs becomes therefore a matter of equality from both a road users as well as citizens perspective, and the rising engagement in defending cyclists interests is a proof of a growing concern in all the affected aspects of urban sustainability: listening and answering to these needs could therefore be argued to be one of the keys to its enhancement.

However, the first social movements that grew around the cycling practice were not directly linked with the interests of the cyclists as road users, but rather used the bicycle as tool and symbol for other kinds of engagement and values, playing for example a particular role for the feminist, environmentalist, socialist and anarchist movements (Horton, 2009). Such variety symbolizes both “the importance of ’ordinary’ materialities to the production and reproduction of cultural and political identities” as well as the capacity of the bicycle to respond to the changes in the framework of political resistance (Horton, 2009, p. 1). Different authors have already focused on the role of the bicycle in oppositional social
movements and on the role of advocacy and activism in shaping the politics of cycling (Aldred, 2010; Batterbury 2003; Furness 2010; Horton, 2006; Horton, 2009). The argued new upswing of the bicycle as convenient, eco-friendly and economic transportation mode resulted in a rising number of cyclists engaging in claiming their space and the recognition of their needs in the cities. While their focus remains to defend their interests as an equal category of road user, in the last years the organization phase has moved consistently to the internet platform, where social media facilitate discussion on new policies and urban plans, draw attention on neglected issues and pressure for new interventions (Balkmar and Summerton, 2017, p. 151-152). Indeed, the difficulties and sense of oppression rose from the car-oriented urbanization of the last decades shifted cycling “from a common cultural practice to a set of sub-cultural practices” (Parkin, 2012, p. 306) and in different urban contexts cyclists have therefore started to be perceived and defined as a minority (Aldred, 2014; Horton and Parkin, 2012, Prati, Marín Puchades and Pietrantoni, 2017) As a consequence, a stronger group identity around such practice has been shaped, and developed in engagement to defend the interests and improve the conditions of the marginalized road users categories (Horton and Parkin, 2012). One of the most recent and relevant studies concerning specifically the case study of Stockholm is the one by Dag Balkmar and Jane Summertonb, who aimed to “describe and analyse the ways in which bicycle activists and advocates in Sweden construct their politics and practices” (Balkmar and Summerton, 2017, p. 151): the findings of the paper support the view of bicycle activism as a mean to practice cycling citizenship, despite the different drivers, focuses and tactics of the organizations considered by the study, and provide a conceptual linkage between new social movement theory and activism in a more general sense. The study also argues how the bicycle can play the role of promoter of a social and political change for the benefit of its own cause as well as being part of a broader perspective, such as the environmentalist one. Within such case, it changes its role and simply becomes a tool for a bigger goal, such as a sustainable city or the abolition of a car-oriented, capitalist society (Balkmar and Summerton, 2017, p. 153-154). The variety and complexity of engagements around cycling result in different strategies, depending on the main goal that they aim to achieve.

More specifically in regard to group identity, while a consistent number of studies has focused on the role of relative deprivation in enhancing participation in collective action, there are limited studies focusing on the enhancement and modelling of participation by group identification. So far, the main focus of previous research has been to combine group identification with group members’ sense of relative deprivation, namely the sense of injustice or unfairness in intergroup status relation (Kelly and Kelly, 1994, p. 65-66). Another study that took group identity into account decided to analyze the connection between the initial level of group identification and the members response to threat to that identity (Spears, Doosje and Ellemers, 1997). The findings show an interesting relation, as high and low identifiers were found to respond differently to self-perceived or public-perceived threats, confirming group identification as driver of action and support. However, no further research has been found on how such driver can affect collective action, nor if it applies specifically to the case of cyclists. Indeed, if on one hand cyclists present strong distinctive features as elements of cohesion (such as visually peculiar symbols or shared experiences), on the other hand the variety of reasons to engage in cycling, the variety of kinds of engagement in this practice (such as sport, leisure or commuting) as well as the variety of types of bicycle (classic, electric bicycle, cargo-bike) make cyclists group identity a unique case study that requires further investigation and confirmation if the same dynamics apply. For example, another relevant study for the aim of this thesis is the paper from Marques, Yzerbyt and Leyens defining the “Black Sheep Effect”, describing how “judgments about both likeable and unlikeable ingroup members are more extreme than judgments about outgroup members” (1988, p.1). In fact, this dynamic can be seen as another incentive for the individual to respect road and equipment rules, since their good behavior can be perceived as a strategy to defend their interests and give mutual support in the face of the criticism against the cycling practice. However, no further investigation has been conducted within the cyclists’ collective action framework.

Finally, it needs to be specified that within this thesis the term cyclists needs and interests will be used to define the cyclists’ engagement focuses: by inquiring on a more specific sphere rather than focusing on one kind of engagement for one specific need (for example, by analyzing only organizations that demand improvements in the cycling infrastructure), this element constitutes an additional point of
distinction of the thesis from previous research. Indeed, the complex reality of the daily life of a cyclist within the urban context of Stockholm includes a range of needs that varies depending on the cyclist, the city area, the season and the perception of the single cyclist. For this reason, it has been decided to adopt the generic definition of ‘improving cyclists’ conditions and defending their needs and interests’ to address the kind of engagement analyzed, rather than addressing a specific movement. In this way it was possible to include a greater variety of topics and thus allowing the research to cover a greater variety of cyclists’ movements devoted to different challenges, in favour of a more general validity of the findings.

2.5. Stockholm case study

Stockholm is no exception to the urbanization process and the related challenges for sustainable urban mobility previously presented. Indeed, the city of Stockholm is forecasted to see its population grow by 25% by 2030, with an increase in housing density as a result from the 100,000 new homes that are going to be built to match the increasing demand (City of Stockholm Traffic Administration, 2012). The city itself acknowledges these changes and has adopted The City’s Vision 2030 in order to be able to adapt in time and adequately to them with a long-term perspective. Ambitious programs are designed and planned to promote cycling (Balkmar and Summerton, 2017, p. 152). However, in order for these impelling, required changes to be successful and to be definable sustainable, the city is faced with the challenge not only to renew itself in structure and policies, but also to do so with a comprehensive, inclusive and long-term outlook.

For this purpose, Stockholm can count on a growing and fundamental resource: its people. The engagement of a great variety of organizations, activists and individual cyclists is bringing attention to the needs and interests of a rising minority, representing a unique opportunity for communication and cooperation between the parts. In order to fully understand the dynamics and impacts of cyclists’ collective action on the sustainable development of Stockholm, a brief excursus on this specific urban context will follow, including its background, recent changes and examples of cyclists’ engagements.

2.5.1. Cycling within the Stockholm urban context

Stockholm, capital of Sweden with a population density of 4,912 inh/km, is home for more than 900,000 people. Among them, the car ownership rate reaches 368 cars per 1,000 inhabitants, with an accident rate of 24,074 in 2015 alone (Civitas.eu, 2019). Considered these premises, the City Traffic & Waste Management Committee and the City Traffic Administration, respectively the decision making body and the executive body, have received the task from the Stockholm City Council to deliver an effective strategy for transport planning, road safety, traffic monitoring and accountability: a new set of goals has then been established, to be reached by 2030: it includes an 80% share of journeys that need to be made through public transport and 15% by bicycle during peak hours, with a desired increase of by-foot journeys both within the inner city and the suburb areas, as well as a perception of traffic not as a problem by 80% of Stockholm residents (Nws.eurocities.eu, 2012). Among the key successful factors identified by these bodies in order to achieve such goals, a close collaboration with both other city committees and administrations, as well as all the authorities and stakeholders involved in street and traffic management, is defined as an asset. A long-term vision is also needed to define what the city wants to achieve, having a clear strategy that defines the steps towards it and a monitoring system to measure the outcome (Nws.eurocities.eu, 2012).

Specifically for what regards sustainable urban mobility, the city of Stockholm “is recognised as a pioneer of using urban vehicle access regulations (UVARs) to reduce congestion, improve air quality and promote alternative transport modes within the city centre” (Elitis.org, 2019). Indeed, according to the Urban Mobility Index presented in the Future of Mobility Report 3.0, the Nordic capital was evaluated with an index of 57.1%, while the world average was 42.3% (Elitis.org, 2019). Particularly
Noteworthy is the fact that the combination of UVARs approaches taken by the Stockholm Transport Authority - including a low emission zone (LEZ), a charging scheme and tight regulations such as specific bans on vehicles in the Old Town - was initially not positively accepted by the city dwellers. Nevertheless, the public acceptability increased turning into a surprising approval, becoming subject of analysis of different studies (Kottenhoff and Brundell Freij, 2009; Franklin et al., 2016; Börjesson et al., 2012). Among the different reasons highlighted as motivation behind such change in the public acceptance, the perceived reduction of congestion played the major role, together with improvements for air quality and accessibility for both car drivers and non-motorized road users, such as cyclists and pedestrians. In this way the whole perception of urban environment was improved, with a reduction in traffic up to 15% in some areas of the inner city (Kottenhoff and Brundell Freij, 2009, p. 399–401). Two particularly interesting results of the policies applied in Stockholm are: increase in the sales of alternative fuel vehicles after the application of the exemption (Börjesson et al., 2012); the abrupt switch of the image of the policies portrayed by the media, that changed deeply especially in the early trial period (Kottenhoff and Brundell Freij, 2009, p. 403). Such change in opinion reflects the public perception in regard to cycling acceptance, which has seen an increasing public support, proving the importance of making clear and visible the benefits of such practice (Börjesson et al., 2012). Most importantly, the key element highlighted by the study of Kottenhoff and Brundell Freij is the combination of such policies with an efficient public transport offer (2009). However, despite the general success of the policy and the reintroduction of the charging scheme in August 2007, traffic in Stockholm has been increasing again. On the other hand, Franklin et al. do not consider it to be a sign of a return to car users’ old habits; instead, they explain it with the rise in the city population and car ownerships, due for example by the previously mentioned increase in alternative-fuel cars (2016, p. 217).

Two main considerations come from these findings:

1) First of all, the still persistent increase in traffic can be interpreted as a proof that charges are not enough as the city of Stockholm is expanding, following the world trend as previously illustrated. This statement underscores the importance of a change in habits as it proves that, if the car remains the first transportation option, no matter what policy will be introduced the rising population itself will make the numbers speak for themselves and cancel any attempt to reverse the mainstream course.

2) Secondly, the key role of public transport as part of the charging policy leads to the conclusion that a similar approach could be used also for enhancing cycling: combining stricter rules concerning motorized options with an improved infrastructure and support network for cyclists could alleviate the burden of what could otherwise be perceived as a mere imposition - as it happened for the traffic charge.

Indeed, it needs to be acknowledged that there will always be “a losing side” in the process: with the expansion of the urban environment, a directly increasing number of stakeholders needs to be taken into account and it is difficult to satisfy such a great variety of interests simultaneously. It rather comes down to a matter of balance and prioritization among the various concessions, while considering the long-term consequences of the implemented choices. It is not the aim of this thesis to demonstrate what the priorities for sustainable development of the city should be, nor to give policies recommendations: the provided background rather wants to give a comprehensive view of the importance of cycling within such scenario. Using this acknowledgment as starting point, I will now focus on the conditions of cyclists in the Stockholm case study, in order to be able to understand and analyze the activism born among the citizens of the city.

As previously illustrated, the sharing of the benefits deriving from a change towards fossil-fuel independent transportation modes would be considerable, and occur in the case of Stockholm as well. Within this specific urban context, a shift in transportation mode would reduce to more than 111,000 the number of car commuters, thus saving 449 years of life annually in the Stockholm County: such result would correspond to more than double the effect estimated for the introduction of the congestion
However, policies supporting a shift in transportation modes would not automatically mean an improvement for what concerns citizens health conditions. In fact, from a cyclist perspective, the roads of Stockholm still represent a highly risky environment: a report by Folksma (Radio, 2019) indicates that a rate up to 70% of the cycling accidents does not actually involve crashes, identifying instead slippery or badly kept roads as main cause. This brings attention to the importance not only of regulations but also and particularly to the relevance of an improved infrastructure. As it has been previously highlighted in the general background, cyclists safety represents one of the main constraints and risks of such practice, that cannot be stemmed by the use of the helmet alone (Rizzi et al., 2017, p. 421). After an analysis on Swedish cyclists injuries, it has also been proven that, in 2013, the number of seriously injured pedestrians and cyclists almost quadruple the number of injured people in a private car, making up to almost ¾ (72%) of the absolute number of serious injuries, with people who have slipped or fallen representing a consistent part of them (Berg, Ifver and Hasselberg, 2016, p. 4). Berg, Ifver and Hasselberg relate these findings to a proven need for further action by the Swedish government to reduce road traffic injuries, together with a dedicated target setting considering the variety of road users groups (2016, p. 4). Nseya contributes to these findings by identifying the street conditions as a key factor behind bicycle accidents within the specific case study of Stockholm, mentioning low maintenance and poor infrastructure as main issues, with challenges ranging from holes and gravel on bicycle paths, obstruction of accessibility on the bicycle lane to other road users invading the bicycle lane. (2018, p. 26, 49). Intersections play another key role, but a decrease has been registered if compared to accidents occurring on bicycle path (Nseya, 2018, p. 21, p. 50). However, Stockholm still presents a high percentage (31%) of bicycle accidents between bicycle and motorized vehicle when compared to the Swedish average (18%), and one of the possible explanation is the higher traffic context of the urban environment taken into analysis. In order to tackle the safety issue, the national policy of a Vision Zero (Nollvisionen) was adopted by the Swedish parliament in 1997, with the aim of bringing to zero the number of people being killed or seriously injured due to traffic accidents.

Specifically in regards to cyclists’ needs, this window on the Stockholm cycling landscape shows how a well-balanced combination of policies and appropriate infrastructure would play a major role in enhancing cyclists’ conditions. A step forward has already been taken by the City Traffic & Waste Management Committee, that set important goals such as aiming for at least 15% of journeys during peak hours to be made by bicycle (Nws.eurocities.eu, 2012). Furthermore, the urban mobility strategy adopted in 2012 includes a Bicycle Plan that recognizes the potential in reserved bicycle space - such as dedicated lanes - as a key driver to increase cycling journeys, as well as effective measure to ensure security when mixed-traffic cannot be avoided (City of Stockholm Traffic Administration, 2012).

2.5.2. The Stockholm cyclists’ perspective

An important element for any kind of activism is not only the actual situation of the mobilized group, but also the perceived threat and condition that the latter feels and experiences. Despite the different plans and improvements that have been reached so far, the city of Stockholm is still no perceived as an ideal urban environment for cyclists. A study on bicycle accidents conducted in the Swedish capital reported that 90% of its informants perceived the road design of some of the investigated areas as not ideal, e.g. with accessibility issues, unnecessary conflicts among road users - with crossings as crucial issue - and fostering traffic jams (Nseya, 2018, p.40). the heterogeneity of the cyclists as road user category also represents a challenge and an element that needs to be considered when talking about cyclists’ conditions, as highlighted by one of the informants of the study (Nseya, 2018, p. 41). This variety results not only in different needs, but also in different speeds on the road, increasing the sense of insecurity especially in crowded sections of the road, and security results to be central for all the informants interviewed, who “pointed out that transport system is more suited to motorists than bicyclists” (Nseya, 2018, p. 41). Pedestrian also represent an issue raised by several cyclists, especially when the path is shared (Nseya, 2018, p. 41).
For what concerns the other main challenge identified in the beginning, maintenance, the informants still experience difficulties, especially in winter because of the roads’ conditions, but recognize that it has improved (Nseya, 2018, p. 43).

These disadvantages, no matter if real or perceived, can translate into an obstacle for cycling as urban mobility option within the city of Stockholm, and cyclists are asking not only to be considered, but also to be recognized as their own road user category (Nseya, 2018, p. 44). Indeed, if on one hand they perceive as the capital municipality, together with other authorities, has improved its efforts in regards to their safety and road accessibility, bicyclists in Stockholm ask for equal treatments when it comes to road user consideration, identifying this change in the way of thinking as the key engine for a radical improvement of their conditions (Nseya, 2018, p. 44).

The discrepancy between the goals, however praiseworthy, of the city of Stockholm, and the actual daily experience of cyclists in the city, deriving above all from the fact that our society is still based on a car driven perspective (Balkmar and Summerton, 2017, p. 154), has meant that different types of activism and engagement were created among cyclists also within the context of Stockholm.

2.5.3. Cyclists’ engagement in Sweden and Stockholm

Among the main drivers, the perception of injustice, such as the marginalization in the urban space, has been identified to prompt action for bicycle activism (Balkmar and Summerton, 2017, p. 154). Therefore, as above mentioned, a discrepancy between the goals of the city and the actual perception and conditions for its cyclists can encourage different acts of engagement for the benefit of the collectivity. In Stockholm, a variety of movements and organizations has developed in the last years in order to promote cycling and to speak out for the needs and interests of its practitioners. In this section, a few examples will be portrayed, describing the focus of their actions and how they intend to achieve the set objectives. However, it is important to clarify that the aim of this paragraph is not to present the organizations from which the interviewees have been chosen: this descriptive section aims instead to provide a broad picture on the variety of engagements that developed around cycling in Stockholm, and on the different ways that collective action can shape such engagement, accordingly to the needs and goals that the organization focuses on. Indeed, the spectrum of ambitions that the different kinds of cyclists’ engagement in Stockholm covers from simple actions of cycling promotion to political and legal action. Such efforts can be perpetuated by single individuals working for the collectivity as well as official organizations well-known on a national level.

One of them is “Cykelfrämjandet” (“Cycling Sweden”), a private association founded in the mid-1930s that promotes the interests of all cyclists in Sweden. First born as an attempt to influence public authorities in building dedicated cycling infrastructure, the organization developed into promotion, advocacy and political engagement. Counting 5000 members from all its 28 regional branches, with one of them dedicated to the county of Stockholm, its stated goal is “to improve the conditions for all cyclists in Sweden”. In order to achieve it, the organization dedicates itself to organizing activities such as cycling trips and educational courses, as well as promoting safer environments for cyclists, for example through maintaining a national bicycle network and partnerships with national and local authorities. Among these partnerships there is a collaboration with another national association, Naturskyddsföreningen, that, despite not being primarily focused on cyclists’ needs, it directs parts of its efforts and resources to cycling promotion as part of its strategy to tackle climate change (Naturskyddsföreningen, 2019).

Within the urban context of Stockholm, smaller realities have also risen in order to address local issues, or to promote cycling among people from the same neighborhood or age group: an example is Pinglorna, a bicycle nonprofit association that organizes weekly cycling trips in Stockholm for pensioners (Pinglorna.net, 2019). Cycling promotion is also sustained by initiatives of single parties, municipalities or by single-standing actions, such as programs to teach women how to cycle or events as Cykelkarneval. The latter, that has Naturskyddsföreningen as main actor and sponsor, can be seen as example of synergy among different subjects within the cyclists’ movements of the city. The aim of the
event is to promote Stockholm as a cycling city for everyone and it takes place yearly since 2017 (Cykelkarnevalen, 2019). On the other hand, organizations such as Ghost Bike and Bike Mafia focus on acts of condemnation of unfavorable conditions for cyclists as road users: the former by placing white-painted bicycles to sign accidents scenes where cyclists have been injured or killed, the latter using internet and particularly YouTube videos to divulge its message (Balkmar and Summerton, 2017, p. 157).

Finally, different kinds of engagement are enhanced by actions of single individuals, who dedicate for example to legally support cyclists victims of traffic accidents or road rage; others promote cycling and sustainable practices through their blogs or through their own business, offering services for cyclists or while cycling, or simply by deciding to take part in initiatives from their municipalities, such as the project “Vintercyklister” (“Winter Cyclist”); last but not least, Cykelköket and bicycle cafés offer a point of reference and provide safe environment for all the cyclists of the city.

Social identity has been found as motivational factor for cycling commuting, with a strong connection between identifying as ‘a cyclist’ and the perceived self-efficacy of choosing this transportation alternative (Lois, Moriano and Rondinella, 2015). On the other hand, the same dynamic of group identification has been found to potentially “produce disadvantaged and stigmatized social identities” in relation to transport modes (Aldred, 2012). With the following research questions, this thesis will aim to better understand the role of group identity in shaping this kind of engagement.
3. Research Question

While previous studies have so far focused either on the impact of cycling on the society or on the impact of collective action on defending people’s interests, no extensive research has been found on the impact that the engagement in cycling and its promotion has on the self-perception of its practitioners, and consequently the way it can affect the city development. This research aims to fill this gap by identifying how such engagement has affected its practitioners and how collective action has been shaped itself by the group identity that developed around the different movements dedicated to improve cyclists’ conditions in Stockholm, finally analyzing how these dynamics impacted its development. The focus is therefore more on collective action and group identity as engine and tool for people to change and to promote change.

With the ambition of setting a possible first step towards understanding the dynamics and the potential of cycling and collective action, aiming to improve both the current and future conditions and well-being of the urban ecosystem and its dwellers, this thesis intends to identify and analyze how collective action for improved cyclists’ conditions has shaped both the addressed city and the people. The main research question has therefore been developed as follows:

“How has collective action around cycling shaped the city and its people within the case study of Stockholm?”

In order to answer such question, the thesis will articulate in an analysis of different kinds of engagement within the cyclists’ movements in the identified case study, answering the following sub-questions:

- How has collective action changed its own practitioners, transforming their capabilities and self-perceptions?
- How has cyclists group identity shaped collective action?
- How has collective action transformed the development of the urban context of Stockholm, both from an infrastructure and policy perspectives?
4. Methods

The methodology chosen to properly investigate the research questions is qualitative methods, such as interviews and observations. The qualitative research will be supported by a previous literature review including scientific papers, official governmental documents, web pages, film material, media articles and dedicated blogs, in order to get an in-depth understanding of the cyclists’ movement, its drivers and the daily conditions within the specific case study. The analyzed literature also constitutes a comprehensive basis to identify the key actors within the movement in defense of cyclists’ interests, in order to conduct a subsequent qualitative research.

The data collection was conducted through semi-structured interviews, which were recorded and then transcribed in order to allow a proper analysis. The first selection of people to interview, who were contacted through email, web forums or Facebook, was based on their affiliation to the cyclists’ movement, followed by a selection of further activists and individuals based on network and suggestion from the former. Such approach was adopted in order to ensure a real insight on the dynamics, connections, affiliations and organization of the collective action that takes place in Stockholm. In regard to the latter, the city of Stockholm was chosen as case study due to its proximity to and the familiarity with that context of the researcher, considered an important factor in order to complete a satisfying research within the limited amount of time available. When referring to Stockholm, the whole urban expansion of the city is taken into account, including both the city center and the peripheries.

The aim of the semi-structured questions was to identify reasons and ideals core to the movement, its organization, levels of engagement and identification, achievements, failures, challenges, changes and tactics of the collective action, as well as feelings and impression throughout the process. All the interviews were from 45 to 75 minutes long and were conducted face-to-face, in order to enrich the study with observations deriving from a personal connection with the interviewee, as well as with body language and tones interpretations. After conducting the interviews, the collected material has been compiled in a spreadsheet using the Microsoft Excel program, where all the answers have been divided by focus subject - as example, a row was dedicated to all the answers related to the difficulties encountered during the engagement, with each column being assigned to a different informant. In this way, it was possible not only to easily group the answers and opinions by main topics, but also to compare them among the different interviewees, facilitating the analysis. Indeed, the method chosen to conduct the latter was a thematic analysis (Aronson, 1995), described by different studies as an efficient approach to analyze qualitative data (Guest, MacQueen and Namey, 2012; Vaismoradi, Turunen and Bondas, 2013; Clarke and Braun, 2016).

A total of seven (7) people was interviewed, selected on the basis of their engagement in improving cyclists’ conditions in Stockholm and/or their dedication to spread the use of the bicycle as a mean for sustainable urban mobility. The age of the five (5) women and two (2) men ranged from 30s to 80s years old, and the amount of time invested in such engagement varied consistently, both in the sense of length of commitment as well as intensity of the work. No mention of the names of the interviewees or of the organizations they are involved with will be provided, mainly for two reasons. First, this arrangement is meant to protect the privacy: all interview-based research needs to consider the ethical question of potential harm of the interviewees or of those involved in the process; the present study does not want to put anyone in danger, either real, potential or perceived. Second, it needs to be acknowledged that during the interviews they were not speaking in the name of any organization but uniquely for themselves, as individuals involved in collective action and not as representatives or spokesperson for any association. However, in order to allow a better analysis and understanding of the results, especially from a reader perspective, the different statements will be allocated defining the answering interviewee by gender and type of engagement.
➢ Interviewee 1: female, engaged in events to promote cycling in Stockholm and owner of a bicycle-centered business, also environmental activist

➢ Interviewee 2: male, involved in politics to improve cyclists’ conditions in Stockholm

➢ Interviewee 3: male, dedicated to defending cyclists from a legal perspective, former police officer in Stockholm

➢ Interviewee 4: female, participant of the project “Vintercyklister” (“Winter Cyclist”) of her municipality in Stockholm

➢ Interviewee 5: female, involved in one of the main organizations for cyclists in Stockholm, also writing for its magazine, and initiator of various events for the association

➢ Interviewee 6: female, member with I 7 (interviewed together) of an organization dedicated to promote cycling for elderly in Stockholm

➢ Interviewee 7: female, member with I 6 (interviewed together) of an organization dedicated to promoting cycling for elderly in Stockholm

All of them have also a history of different kinds of engagements, both related and not with the framework of urban mobility, external to the ones mentioned and analyzed for the aim of this research. All the interviewees were introduced to the project before conducting the interview, both at the first approach through email and then more in depth before starting the interview, answering questions whenever the interviewee needed further clarification. It was then asked them oral permission to register the interview for research reason, clarifying that it was only for the researcher use.

It needs to be acknowledged that, despite the efforts in constructing the research as comprehensive as possible, the methodology presents limitations. First of all, the initial selection of contacts was the result of an internet-based research: this means that people who do not have, either willingly or not, their contacts on any of the internet platforms were not included a priori, limiting the variety of informants. I tried to overcome this obstacle by asking to the first selected informants for recommendations based on their network; however, this approach presents the constraint of still leaning on the bias of the first selected interviewees. Secondly, all the people interviewed except for one (I 4) were of Swedish mother tongue. The language barrier, present at different levels depending on the informant, is a limitation to the complexity and linguistic variety of expressions used to formulate and communicate the desired answers. That needs to be considered when conducting a qualitative analysis of the interviews. Last but not least, the amount of time available for the research represented a consistent limitation in two ways: first, during the time range of the conduction of the study, no events connected with cyclists’ collective action were organized in Stockholm, thus not allowing to add participatory observation to the methodology and enrich the analysis (limiting the observations during the interaction with the interviewee, including body language and tone interpretations); second, the amount of time available allowed to conduct and analyze only a restricted number of interviews, due to the availability of the contacted informants and to the number of researchers available to conduct the interviews. A more extensive study that takes into account these three key limitations and possibly overcomes them would bring added value to the results and could evaluate further the different effects of collective action on both the city and the people, potentially taking more elements into account.
5. Theory

5.1. Definition of sustainability

The Brundtland Commission defined sustainable development as “development which meets the needs of current generations without compromising the ability of future generations to meet their own needs” (Brundtland Commission, 1987). But, in order to define an urban mobility practice as sustainable, is it enough to analyse it in relation to its carbon emissions?

There are indeed different perspectives and definition around the word sustainability, making the task to define a sustainable transportation practice a complex but important step. Complex, because sustainability itself is a wicked problem, namely a unique challenge with no settled solution, as the problem itself is the result of correlation with other issues, giving more than one possible explanation to the cause of the wicked problem, thus requiring an articulated solution (Rittel, Webber, 1973). Despite the remarkable variety of thoughts and perspectives on sustainability throughout history, John Dryzek stands out for being able not only to include in his thinking the interdisciplinarity that distinguish this subject, along with all its challenges, but also to include contributions from the past. Indeed, sustainability is not a static concept, Dryzek himself refers to it as “a broad debate” (Caradonna, 2014, pp.12). In this dynamic debate, he is able to identify four key points, around which he develops his thinking: interconnection among the three “Es” (environment, economy and social equity), the ecological limits of our society, the need of a long-term vision for a sustainable future, and finally localization and decentralization, along with the awareness of the individual responsibility (Caradonna, 2014, pp.12-18). However, sustainability was at the beginning mainly linked with environmental and economic issues. The first author to make a connection between social inequality and a negative approach to nature was Rousseau (Caradonna, 2014, p. 52), but only at the beginning of the 21st century there was a shift towards the inclusion of a social dimension of sustainability (Caradonna, 2014, p. 220).

All these challenges for sustainability are equally relevant for different reasons, revealing the complexity of the topic. In fact, by using the word sustainability we are addressing a broad subject: “Sustainability has nowadays become a wide-ranging concept, which can be linked to every aspect of human life” (Zaman, Goschin, 2010, p.6). This is why interdisciplinarity is such a key factor for the field of sustainability, and therefore needs to be taken into account when evaluating the sustainability of urban mobility. The importance of the consideration of all its three economic, environmental and social aspects is recognized also by the OECD, who defines sustainable transport as the one that “allows the satisfaction of the basic accessibility and mobility needs of people, companies and society, so that it can be compatible with human health and the equilibrium of the ecosystem, promoting intra and inter-generational equality” (OECD, 2000 and Mourelo, 2002). The integration of the social, economic and environmental dimensions becomes fundamental, with elements such as land use, efficiency and acceptable costs gain value within the sustainable mobility framework, to which Gudmundsson and Höjer add quality of life and its fair distribution among all individuals as new, core elements (1996).

This interdisciplinary approach results fundamental to both identify and evaluate sustainable mobility alternatives. Specifically in regard to transportation, the relation among the three categories was initially intended as an exponential connection between economic profit and increased mobility. However, more recent studies proved how, beyond a defined optimal level, an increase in motor vehicle transportations actually leads to negative economic consequences, as external costs and declining marginal productivity of increased travel offset the gains (Litman and Burwell, 2006, p. 334-335). This is why tools as the bicycle are gaining more and more recognition in the vision of sustainable urban contexts and, by grounding the analysis of this thesis within the interdisciplinary theoretical framework of sustainability as defined in this section, the following discussion will also adhere to such conceptualization.
5.2. Definition of collective action

Despite being an important alternative solution for individual transport thanks to “its significant reach, readiness to ride, easy operation and relatively high cruising speed” (Kalasova and Krchova, 2011, p. 21), bicycles still suffer from an unequal distribution of dedicated space on urban streets: cyclists’ movements have consequently developed worldwide to defend their needs and interests, and Stockholm is no exception. Collective action represents, to this regard, a powerful tool for a bottom-up approach in addressing this issue. Based on a decision-making process that requires networks and flows of information between individuals and groups in order to reach a shared goal (Adger, 2009, p. 389), collective action aims to increase the likelihood of a goal that is desirable by all the agents involved in such process (Medina and Luis, 2009). These are the key elements that are found in the variety of facets of the definition of collective action. Yet, the same term can be extended to “actions undertaken by individuals or groups for a collective purpose” (Brunsting, Postmes, 2002, p. 527). In this perspective, the requirement of collective action to be operated by the coordination of a multitude of actors does not sustain anymore, as long as its goal is for the benefit of the collectivity as a whole. In support to this definition, acts such as sabotage, civilian disobedience or simply taking care of common interests in a community, can be undertaken by a single individual, yet still be intended and used as a tool to achieve a collective outcome (Brunsting, Postmes, 2002, p. 527; Oliver, Pamela, 1984, p. 602, Postmes and Brunsting, 2002, p. 290). This broader definition, including collective action as an act perpetuated by either an individual or a group of actors in order to achieve a collective outcome, is the one adopted for this research; indeed, cycling itself can be an act of adhesion to certain values or ideals, supporting the cause and/or demonstrating not only the need for improved cyclists’ conditions, but also the presence itself of a determined category of the community. Cycling is a practice that, when undertaken as a mean of transport, automatically involves a public visibility: therefore, without necessarily being organized, the act itself is already a support to a collective purpose, as well as a practice that has a direct impact on the society as a whole, as described in Section 2.3.2. This thesis will then define collective action around cycling as the action of the collectivity for the collectivity through the efforts of both single individuals and organized groups.

5.3. Definition of group identity and social identity theory

Social identity, also known as group identity, refers to the perception of self of a person deriving from perceived membership in social groups (Chen and Li, 2009, p. 431). Such identity is grounded upon categorization of individuals, together with the perception of oneness with a group of persons, and leads to “activities that are congruent with the identity” such as support to a certain cause, institutions or values (Ashforth and Mael, 1989, p. 20). Demonstrated to be a central concept in understanding phenomena in social psychology, the concept of group identity has been consequently studied and developed into social identity theory by Henri Tajfel and John Turner, who identified three major components constituting group identity: categorization, identification, and comparison (Chen and Li, 2009, p. 431). Categorization refers to the process of labelling and dividing people into categories, including our self-image. Identification, the second component, is then the act of associating ourselves with a determined group, with a differentiation of ingroups - those we identify with, and outgroups - those with which we do not associate ourselves. Finally, the third component is comparison, namely the process of comparing our group(s) with others, characterized by the creation of a favorable bias towards the one(s) we feel we belong to (Chen and Li, 2009, p. 431). Social identity theory then identifies three main consequences of such processes: first of all, individuals tend to choose and support activities congruent with the core aspects of their identities and the institutions that embody them; second, the outcomes conventionally associated with group formation are affected by social identification, such as intra-group cohesion, cooperation, altruism, and group evaluations; third, identification may lead to “internalization of, and adherence to, group values and norms and homogeneity in attitudes and behavior” (Ashforth and Mael, 1989, p. 25-26).
For the benefit of the analysis of this study, it is fundamental to highlight that the dynamics of group identification have been found to occur “even in the absence of strong leadership or member interdependency, interaction, or cohesion” (Ashforth and Mael, 1989, p. 34). This is particularly relevant for the case study of cyclists’ engagement in Stockholm: indeed, it differentiates itself from other kinds of collective actions since not always the individual is part of an organized collective entity, but can then still identify him or herself with the group of cyclists.

It is also important to acknowledged that such identification can be influenced by other social identities, as social identity can be distinguished in two categories: complex social identity, hence when an individual has many distinct constituent identities; and in simple overall social identity, namely when there are only a few and overlapping identities (Grant and Hogg, 2012).
6. Results

In this chapter, I am presenting the results of the six semi-structured interviews conducted during the months of March and April 2019. With the aim of avoiding redundancy of the same interviewee’s quotations in both the results and discussion sections, I have chosen to dedicate this chapter to a comprehensive overview of the main findings, keeping relevant citations from the collected material to strengthen the argumentation of such results in the discussion section. Indeed, it was not possible to include all of them as even a table with only the main answers would have taken inappropriate space, making the results section too broad, confused and of difficult comprehension for the reader. I have therefore preferred to summarize the collected material in brief paragraphs, supporting the results here presented in the following discussion chapter with evidence (quotes) and in-depth analysis based on previous research - while including the results of the interviews in a table, added as Annex I.

The results are indeed drawn from the quoted answers (Annex I) of the selected informants, people engaged in activities and organizations that promote better conditions for cyclists within the context of the city of Stockholm. All relevant quotes have been organized and can be found in a table (Annex I), which is divided by research questions and, in relation to each one of them and their main findings, includes the related quotes from all interviewees. In order to ensure the privacy and safety of each interviewee, both in the result and discussion chapters no name of person, organization or event will be mentioned. However, in order to provide the reader with all the necessary information, a short description of each interviewee - including gender and type of engagement - has been provided in the methods chapter (Section 4) and will be again specified throughout the discussion.

By presenting the results of the interviews and then discussing them, the aim is to answer the research question, namely how collective action around cycling has shaped the city and its people within the case study of Stockholm. In order to address this main research question, the following sub-questions have been answered:

6.1. How has collective action changed its own practitioners, transforming their capabilities and self-perceptions?

Collective action has been found to have an impact on its practitioners enhancing a feeling of 1) empowerment, 2) freedom and 3) community. These three are the core and most recurring changes observed during the interviews, as the informants described their relationship with the bicycle and their engagement for the benefit of the collectivity - regardless of the fact if these actions were being perpetuated as part of an organized group or as an individual.

More specifically,

1) empowerment has often been connected with the achievement of set goals as well as with overcoming simple difficulties related to cycling. Additionally, collective action has been found to empower not only its direct practitioners, but also people who get in touch with them and their activities, as the benefits of their engagement affect the society as a whole;

2) freedom has been a recurring topic throughout the interviews thanks to the perception of the bicycle as a flexible, affordable, efficient and inclusive tool;

3) the community feeling has resulted from the description of episodes related with equality, inclusiveness and socialization, leading to a stronger group identification.
6.2. How has cyclists’ group identity shaped collective action?

Throughout the interviews different levels of group identification have been observed, nevertheless the majority of the informants described a strong dichotomy between cyclists and car drivers. The contrast between the two is amplified by the perception of cyclists being a minority among road users, directing the priorities of cyclists’ collective action towards the recognition of their needs and towards contrasting the car hegemony in the city. The engagement in these actions has been found to be enhanced by a strong group identity. However, another element observed is that, precisely because of the perception of threat towards a group for which there is a strong identification, cyclist have severe opinions, both in negative and positive connotations, about members belonging to the same group identity. Moreover, the different intensity with which the respondents identified in the group could be described as a spectrum, placing the interviewee within a range of perceptions that consequently alters their actions, engagement and opinions, both within and outside of the identification group.

6.3. How has collective action transformed the development of the city of Stockholm?

When focusing on the effects of collective action on the development of Stockholm, the collected material shows the influence of different kinds of engagement on 1) infrastructure, 2) policies, 3) awareness and 4) organization and network:

1) first of all, when talking about their achievements, the interviewees mention changes in the built environment of the city, proving a direct impact on its infrastructure;

2) for what concerns policies, a growing political engagement has been perceived both by activists and by political parties themselves, whose action has been influenced and directed by the requests and confrontations with different cyclists’ associations;

3) such change in the political sphere resulted in an expanded network both on the formal and informal level. Clear example is the fact that most of the interviewees knew each other or that their organizations had some level of connection;

4) finally, this growing network has been found to increase the visibility of their actions and interests, resulting in many informants stating awareness and acceptance as fundamental outcomes of their engagement and as major change in the development of Stockholm.
7. Discussion

7.1. How collective action changed its own practitioners, transforming their capabilities and self-perception

Three key words can be used to summarize the main findings of this research in relation to the effect of collective action on its practitioners: empowerment, freedom and community. Throughout the interviews, these terms, both explicitly as well as in more indirect ways, are mentioned or emerge from the given answers, creating a red thread among the people interviewed, regardless of the kind of engagement they experienced.

7.1.1. Empowerment

When using the word empowerment in relation to the individual’s capabilities and self-perception, this research refers to a “process where individuals learn to see a closer correspondence between their goals and a sense of how to achieve them, and a relationship between their efforts and life outcomes” (Mechanic, 1991, p. 641). This process can be extended to the person and environment interaction, “involving mutual respect, critical reflection, caring, and group participation, through which people lacking an equal share of valued resources gain greater access to and control over those resources” (Cornell Empowerment Group, 1989, p. 2). Taking these two definitions into account, the results have shown an empowering effect deriving from cyclists’ collective action on both individual and community level.

First of all, the words of two women, Interviewee 4 and Interviewee 1, respectively engaged in the “Vintercyklister” project and owner and promoter of bicycle-centered activities, represent a clear example on the importance that such engagement represents for them, also on a personal level:

I 4: “I’m very active, you know, I want to be an active community member”

I 1: “I have always been interested in the environment and I also decided for myself that I have to do something. I can’t do things that are useless, cause I get sick actually, I feel terrible, I almost get depressed if I have to stay in a place where I cannot produce something where I can do something, it has to be good for something”

In regard to the former, collective action can be defined as empowering because the people involved in the different organizations felt as they were having a tangible and direct impact. First, the perception of responsibility and of the importance of the role held enhance their commitment to the point that, if they wouldn’t fulfill their specific role, they fear the work and aims of the organization they are part of would be compromised. As the experience of Interviewee 7 within a cyclists’ organization for elderly demonstrates, it results in a strong sense of accountability and recognition.

I 7: “They asked me several times and I didn’t want at first but i thought it was very good organization, it has good purpose, [...] so if there were no chairman they maybe had to put it down, so it was pity, and then I thought, I can try to be chairman.”

Second, the empowerment feeling is reinforced by reaching set goals and seeing the deriving improvements in the society they live in. For example, in regard to the same interviewee, her engagement in the association brought her to protest to request to allow again to bring bicycle to and from a commuter train station in the city. The enthusiasm for the success of the demonstration, conducted in partnership with another cyclists’ organization based in Stockholm, transpires from her answer as immediately after being asked exactly what happened, her first answer was ‘yes yes now you
"can take your bicycle to the new station!" and shortly after the other interviewee (6) specifies “if we didn’t do that maybe they haven’t thought about it”.

Another key example of the effect of these achievements on their enablers was described by the first informant, whose engagement resulted in the interruption of the building of a new parking lot in the city. Its construction was demanded by some of the employees of the institution commissioning the construction, despite the fact that most of them lived within 2 km of distance from the workplace. Moreover, in order to make place for the new infrastructure the cutting of old trees would have become necessary. The opposition perpetuated by the activist, who in this case acted independently, avoided the start of the work: “Yes, I saved the trees!” she states with enthusiasm while describing the fact, mimicking a small victory gesture. As I asked her details about the decision process and how she was able to intervene, she focused particularly on the resolute opposition she encountered, beating her fist on the table as she was repeating words and gestures she had to face during one of the main discussions. Despite the strong opposition - described as “he was actually using so much force to try to stop me” - she deeply believed the parking lot was not for the benefit of the area and of the committing institution. Despite the strong opposition encountered, at the statement “you are not the one who is gonna decide!” she replied “why not?”.

In general, all the interviewees, when describing their actions and the outcomes of their efforts, often focused on describing the hard reactions and oppositions received, mimicking gestures, voices and sometimes describing the fear deriving from harsh confrontations - both in and outside of the road context. Despite these difficulties and even despite the fact that, when asked, most of the interviewees still perceived there is a lot to be done in order to improve the current cyclists’ conditions in Stockholm, people described with pride and enthusiasm the goals reached so far, acknowledging the impact of their actions and consequently adjusting their perspectives and hopes on the future of the city and of their engagement. A clear example comes from the words of Interviewee 5, a woman engaged in one of the main organizations for cyclists in Stockholm.

I 5: “I feel like ‘why isn't anything happening?!’ but things are happening”

It could therefore be concluded that empowerment became an intrinsic part of the outcome of their engagement and achievements, hence outcome of their collective action. To this regard, given the previously given definition of collective action with cycling considered as an act of engagement itself, the discussion about empowerment can be extended not only to the outcome of their achievements, but also to the empowerment deriving from the action itself of cycling. The internalization of this self-empowerment process was reflected for example in the words of Informant 4 who used her own name to define the energy fueling her activities:

“Any way that I can [...] bike to something, just using my own energy, my own fuel, that’s what really motivates me, how can I figure this out, just being on '[name] power', '[name] energy'. And I think that’s, I mean, I think that’s important, if you can get [there] and it’s only a few kilometers, I walk, or I run, I bike”

Such change in self-perception was emphasized not only by their words, for example by addressing themselves as “their own engine”, but also by the gestures accompanying them, often symbolizing victory or showing strength, both when talking about their organization’s results as well as when simply describing how they overcame a difficulty faced when cycling.

I 6: “[referring to what her family told her when she joined the cycling group] you are very good, sporty woman”

I 7: “I think my son said it too, ‘very good’ yeah [...] they were happy about it”

I 6: “[When I] do things that are a bit scared myself to do, [...] my friends say ‘oooh, not today, eeehm’ [but] we’re not scared [...] yes, we’re powerful”
Indeed, the act of cycling means accepting the difficulties that come from being an exposed road user and overcoming everyday cyclist life difficulties, such as falling, bad weather conditions or dealing with the chain when it comes off.

I 4: “There was an incident when it was raining, and I fell off my bike, and nobody came to help me, so I felt like ‘why am I doing this?’ I could have been sitting in my nice and warm tunnelbana, [...] and then there was another incident when my chain came off my bike and I didn’t know how to fix it, so I had leave my bike somewhere and call my husband to come and pick me up and everything... so those accidents... ‘why am I doing this? I could had just been sitting dry and warm’”

and when asked how she overcame those moments, she answered:

“well, I said ‘tomorrow is a new day’ [...] you know, now that I’ve been biking so much I know which bike paths are slippery, so I try to avoid them, so also a little bit of experience”

Similar experience was shared by Interviewee 1, who was inspired by the challenge of “solving the puzzle”, figuring things out on how to be more environmental-friendly by taking the bicycle and organizing accordingly.

I 1: “I went to Fb [Facebook] page and I saw this bike with a cargo bike and he was trying to put so many things on his bike and I thought it was so funny because trying to do something environmental friendly and at the same time having a lot of fun while doing it. I’ve been trying to talk to the people at [name of the institution she used to work for], please try to be more environmental friendly but they ignored it totally and for me it is more like ... an issue, a game, what’s the challenge, for me it is more to solve a puzzle being more environmental friendly”

Indeed, these adversities are sharpened by the challenges and marginalization deriving from car-shaped society, bringing the cyclist to cover at the same time also the role of ambassador of a sustainable practice, since “cycling is simultaneously a practice of legitimation, resistance and project-building” (Horton, 2006, p. 54). Such role also entails consequences because hostilities against cyclists are still widespread. Cycling then becomes an everyday pursue of cultural and political change while facing conflict with the dominant mainstream transportation modes, infrastructures and policies (Horton, 2009, p. 18-19). It therefore becomes a tool of empowerment of the individual as act of statement, resistance or defense of a personal right to be recognized and respected as equal road user.

I 1: “It is an issue to cycle in Stockholm [...] when I have my cargo bike and I’m gonna deliver food and I meet some other women also going with the cargo bike: [...] it is us”

I 7: “I haven’t no car, so my cycling is my car”

Moreover, another result emerged from the interviews was how they became themselves reason of empowerment of others. This process was observed in two different dynamics: first, by guaranteeing through their actions that everyone had the opportunity to cycle, with all the benefits that come with it. Indeed, if considering the previously given definition of empowerment focused on the person and environment interaction, the goals achieved by the collective action do not only stand as achievements for the movement itself, but benefit - and consequently empower - both the cycling community and the wellbeing of the citizens of Stockholm as a whole - as already observed by previous research for other types of benefits, described in Section 2.3.

The second dynamic observed was the empowerment of individuals external to the collective action engagement in the sense of changes in their self-perception: the interviewees portrayed through their answers an empowerment effect of collective action that went beyond their own person and transmitted the same changes in self-perception that they experienced, such as feeling of energy and self-confidence, also to the people around them, leading many people to start cycling by simply being a visible example for the community through their own actions - as described by Interviewee 2, who is also involved in politics to improve cyclists’ conditions.
I 2: “Perhaps also changing in my neighborhood [referring to the number of people he was able to convince to cycle] because many [of the] people around in where I live, that also live in houses and they have cars, they have bought bicycles quite recently”

In a similar manner, Informant 4 also aimed to become a role model for the people around her, who focused particularly on describing her active efforts in talking about her experience with other people.

I 4: “I wanna be a good example: if I can do it, anybody can do it. Really, that’s my motto: if I can do it, I mean, anybody can do it, you just have to have the right equipment, the right you know coat, I can bike in the rain, in the snow... the same for running, it doesn’t matter about the weather, it’s all in here” - and she points at her head - “I talk about it, tell people ‘yes, I’m very proud I’m a winter cyclist’ and I tell them about the program so I spread the word, created awareness” - she takes a moment to think - “and this has reinforced the fact that if I can do it than anybody can do it, so, I think I’ve become sort of a role model, in that way”

A similar approach was adopted by Interviewee 1, who tried to convince people by highlighting how accessible and enjoyable this transport alternative is.

I 1: “I try to communicate, that everyone are able to bike, everyone, is fun, it is about the [name of the event she is in charge of] to show that”

Moreover, these findings confirm that the dynamic studied by Jugert et al described in Section 2.4, namely that “group processes (i.e., collective efficacy) can influence individual beliefs (i.e., self-efficacy)” (2016, p. 16), applies also within the specific case study of this thesis.

7.1.2. Freedom

This empowerment is reinforced by a feeling that in all the interviews has turned out to be one of the main on people capabilities and self-perception: freedom. Indeed, there was a strong connection with the perception of their own capabilities and the freedom they gained.

I 4: “I like using my own energy to transport myself, the mobility, the sustainability. and then all of the aspects of having fresh air, getting exercise, I don’t have to follow any schedule for the tunnelbana or busses or... so it gave me a lot of freedom”

I 5: “I love to be my own engine, like, [...] I move myself and I decide when to go and I do it and also I love being outdoor, I don’t want to have some time to think about, I don’t like to go underground... ehm... it’s a freedom for me”

The bicycle becomes the empowering tool that allows them to have the freedom enhancing their capabilities: they can do what they prefer to do, when they need to, despite an urban context that they do not perceive as easy and enjoyable when dominated by car presence. The car is consequently put in juxtaposition with the bicycle that now, in addition to the other benefits previously presented in the background and acknowledged by all the interviewees, has also to some extent displaced the car as a symbol of freedom, as it was intended starting from the post Second World War era (Horton, 2009, p. 18). For example, at the question about how they felt when they cycle, the reply from Interviewee 7 was just the word freedom, while other interviewees articulated more their thoughts, highlighting the different aspects related to such concept.

I 2: “Hmmm to me bicycle is that symbol [referring to the past role of the car], that is freedom, because you can... it is such a simple mean of transport, you just get up in the settle and you pull the pedals and .. you move! and you can move yourself fairly quickly from one place to another and you decide yourself how you do it and.. yeah, to me is a symbol of freedom in a way”
I 5: “The bike is like perfect, like, the key for so many questions, for so many problems. the environment, and also the city environment, it’s not so nice with the cars, like with particles and stuff and like it’s more democratic, it’s easier to get a bike than a car, a lot more people can afford a bike and for the health issue also, especially today when sitting is the new smoking so more people die from sitting and eating too much than from not eating, so I think the bike is the solution for everything almost”

Informant 3, cyclist and former policeman dedicated to defend cyclists from a legal perspective, focuses not only on the concept of freedom of movement, but also freedom as chance of encounter.

I 3: “It’s lot of thing. because cycling is [pause] freedom.. [pause] somehow and it’s, you move quite fast and you know you.. it’s not like sitting in a car because when you sit in a car you miss everything around you. And if you sit on the bicycle there are so many [long pause] well, you get so many impressions from everything around: nature, and you can stop anywhere”

The importance of such freedom and convenience, with their deriving empowerment, even overshadows more material advantages such as the economic aspect, which was usually taken into account by the interviewee only when specifically mentioned in the question, for example during the interview with Informant 4.

Question: “Have you ever thought of the cost instead as a benefit or you never taken that into account?”

I 4: “Yeah that’s true [she takes a small break and her voice intonation sounds as if she had never thought about it before, as if it was a moment for realization and first consideration] there is an economic perspective, I save money [...] it hasn’t been a priority, I mean it’s so affordable anyway by tram, just having that freedom following my own schedule and getting around on my own energy”

On the other hand, the economic advantage is looked at in a completely different perspective when related to the egalitarian and inclusive aspect of the bicycle as an affordable mean for the most. These two aspect, equality and inclusion, are the two final points of the discussion on how collective action for cycling has shaped its practitioners. Inclusion is enhanced thanks to the feeling of belonging and the definition of a new group identity for the individuals who engage in this practice. It changes people’s capabilities and self-perception because it allows easier encounters, it is often used as aggregation tool and creates opportunity for cultural exchange and feeling of belonging.

I 5: “Well, actually the classes that we give […] mostly are immigrant women, for them, they have said that it has changed their life, because now they can apply for [a] job, because before they were like in their flats and they couldn’t move, and now they can take, because they don’t have driver license but with learning how to bike they can apply for jobs, cause they can, they are mobile”

I 6: [referring to the people joining their weekly cycling meetings] “They all speak Swedish […] Some have very long names, but who cares, […] we don’t talk about that”

I 1: [referring to a hospitality project for cyclists] “So I had a lot of bikers, I have an extra bed, you have discussion with people from all over the world. To meet them you don’t have to go anywhere, […] to know different cultures”

Together with self-perception, the perception of the city as well as the perception of the daily life and personal wellbeing are also changing: the freedom deriving from the bicycle translates into the possibility for more people to explore and experience, increasing possibilities of encounter, exercise and even employment. This leads to the bicycle being perceived and becoming a driver of equality, especially thanks to its affordability and its role in giving everyone the same opportunities.

I 7: “So it’s free. We’re not so fund of doing expensive things. some Swedish old women don’t have so much money for example - so you try to go to places that are free”

Informant 1 also mentions the economic aspect, adding a perspective on people’s diversity and capabilities.
“Cycling can be so many different things, it could be a child, it could be 90 year, you can go fast you can go slow you can go cargo bike [...] it is very broad but when you talk about biking and cyclists but everyone, not everyone but a lot of people think that it is just one part”

“For me I think the people who doesn’t have any money, that’s why I think you should have cycle path because you can buy a bike for 500 crowns and you cannot even get a bus card for 500 crown, but then you can still cycle”

The political aspect is also raised, as equality stands as ground of a democracy.

“The politicians say you should be able to choose, yes but then you make the choice equal. It is the bike with less space […] all the traffic rules are made for car drivers”

“It’s more democratic, it’s easier to get a bike than a car, a lot more people can afford a bike”

7.1.3. A community feeling

The inclusion aspect leads to feel part of a community, fueling a specific group identity. Such feeling of belonging is enhanced by shared experiences, both in negative and positive connotations. Indeed, most of the interviewees had similar experiences and described how important it was for them sharing and comparing them with other cyclists.

“I met so many people, so many times I have met friends or other people on the cycle path, where you can stop […] you can’t stop your car (...) and for me when I have my cargo bike, when I’m selling food, what I always missed when I worked at [name of the institute she worked for]”

“That happens frequently […] you can always share experiences ‘this is a silly bicycle lane because it stops 50 meters up here, and where are we supposed to go?’ and we can talk about those things or can talk about the cars that drive irresponsibly or yeah always things you can talk about. And that happens”

“Sometimes I go biking together with other people […] If you go in a group for cycling you meet and you talk to all these people, in a cycling club”

“Two of my colleagues, they are also biking, […] and we’re always talking about the weather and biking because, I mean because it affects us, and what kind of equipment we should have, or lights or… it’s nice conversation”

Later in the conversation she adds how this element brought her closer to her colleagues. For what concerns instead more specifically the project she is part of, Interviewee 4 stated: “I think being part of a group was an important factor, because everyday we would encourage each other and share experience”

“I feel like I know almost most people engaged in cycling in some ways in Stockholm, which is cool, if someone is like ‘oooh Simon’ ‘oh yeah I know him!’ so you know, the guy who has the cargo bike company, the guy who has the other company, the person who was in the cafe, like in the cycling cafe.”

All of the interviewees had experienced, at different levels, some kind of road range, and that resulted to be another element of empathy.

[referring to episodes of road rage] “That is something we’ve been talking about at the office with the biking group, because everybody had different experiences about these aggressions [...]”
yeah, I think that is something we have in common, that everyone has experienced it, these aggressions on the road”

The following section will then analyze how group identity has shaped collective action for cyclists, while road rage will not be discussed further, despite the amount of relevant material collected through the interviews. The reason is that it would have misled the aim of the research, however its relevance for collective action and cyclists group identity could be a valuable focus for future research.

7.2. How cyclists’ group identity has shaped collective action

7.2.1. Group identity and dichotomy

As illustrated in Section 2.4, previous research has confirmed the relation between the initial level of group identification and the members response to threats to that identity (Spears, Doosje and Ellemers, 1997), showing that high and low identifiers were found to respond differently to self-perceived or public-perceived threats, confirming group identification as driver of action and support. Since no further research had been conducted on how such driver can affect collective action, or if it can be applied specifically to the case of cyclists, one of the aims of the interviews was to investigate whether the relative sense of deprivation coming from a specific group identification could be identified as agent in shaping cyclist collective, for example by being a driver of engagement. Such pattern has been confirmed by the findings of the interviews; indeed, the people involved in the most time and energy consuming actions had a strong identification as cyclists that was expressed through the rejection or hard feelings towards cars and car drivers, creating a dichotomy that can be simplified as “car vs bicycle”.

I 4: “I think there is a little bit of aggression between the cars and the cyclists, definitely, [break] especially here in the city. Sharing the road is sometimes can be conflict”

Within the described dichotomy, car drivers are seen not only as the opposed category of road users, but also as constrain and potential harm for all the other individuals and social groups within the urban context, as their presence affects the urban ecosystem in more ways than just traffic-wise.

I 5: “The bike is like perfect, like, the key for so many questions, for so many problems, the environment, and also the city environment, it’s not so nice with the cars, like with particles and stuff - and when asked her opinion on car drivers perception of cyclists - “I think a car driver that also cycles is aware, I think that a car driver who never bikes hates [word particularly stressed] cyclists. I would, I think. If I were a car driver and never biked I would hate [very stressed word] them, because you know they are in the way and you don’t want to hurt them and stuff so maybe it gives stress. If you are a car driver you would rather not have cyclists around. But [...] I guess that most [of them] are nice and friendly people who, like, understand that there are bikes and stuff like that. But also, you know, there have made studies, like, that the car makes you a worse person, that you get more aggressive than you are normally, that [...] does something with you”

This perception, emphasized by the level of identification, shapes collective action by directing its focus and priorities. Indeed, as consequence of this perceived dichotomy, many of the actions of their engagement focused to change the car-centered conception of the city, for example by demanding to take away motorized vehicles from the city center, claiming the street for the other road users.

I 2: “We made some direct actions where we sat down in some of the most trafficked inner city streets in Uppsala [...] so we were a bunch of people, we made a blockade, that was our direct action, [...] with the purpose of highlighting the need for car-free Uppsala”
7.2.2. Perception of being a minority

In relation to the previously described dichotomy, another element observed during the interviews was the impression of belonging to a minority, leading to the urge to stand together because underrepresented and unheard in the decision-making process. All these feelings enhance the perception of a city as built and organized for the other road users, with cycling not being considered a priority. As a consequence, cyclists feel the necessity to take action in defense of their interests. This confirms the findings of Balkmar and Summerton (2017), who analyzed how a stronger group identity, deriving from a rise in difficulties and sense of oppression of cycling, led to an increased engagement - further described in Section 2.5.3.

I 1: “[Stockholm still needs] to make cyclists and pedestrians the norm and the car drivers the exception, because then you are gonna build the city for bikers and pedestrians”

I 2: “The modern part of Stockholm was built after the Second World War, and during that time you planned the city for cars, not for bikes, not for pedestrians, and we still have that problem, because everything was built during the 50s 60s 70s well that is still here, all the streets, the roads, the parking lots, everything; it was built during that time for what the city planners and politicians, during that time, thought it was a very modern things to do, namely organize the city according to the needs of the car, because [the] car was like the symbol of liberating man almost […] We can’t plan cities like that any longer, so that’s , when I say that, with that comes not only city planning but investments in an infrastructure […] building public transport and bicycling infrastructure as affordable to people and as convenient to people as it should be, so yeah that car is the norm that’s.. if I should just pint out one [main challenge for cyclists in Stockholm]”

I 3: “Especially here in Stockholm and Sweden we haven’t built the streets for cyclists since the 40s when everyone was going with bicycle, and now they are trying to. If you compare with Amsterdam or Copenhagen, they are ahead of us, because they have built for cyclists for many years […] Here we have just focused for driver, for the car […] If I go by car from where I live to Uppsala for instance, there is no problem to follow the road signs […] it’s no problem to find the way if you go by car. If you go by bicycle, I have been cycling from Uppsala to my place where I live and you know, through Stockholm, […] you lose the way, the signs are not… people who have planned, they haven’t focused how is it to go by bicycle”

Interviewee 3 then compares these difficulties with the car drivers’ conditions, denoting a perception of disadvantage.

I 3: “They have forgotten about bike, how do you plan it, and people who are using the bike for going to work and home every day, they are… most are built for car traffic, and the cyclist is very… lot of stops and they have to wait”

The disadvantage is perceived not only on the road, but also in the quest for a shift in the system, as the car industry is described by Interviewee 5 as Goliath while David, the cyclists’ collective action, tries to get the recognition and space they demand.

I 5: “It’s like David against Goliath, because I think one big reason why there are so many car drivers even though they don’t have to be is the car industry. there’re so much money, there are so much money, and they want people to buy cars. And so I think that’s a big reason […] some people are like ‘why do I have a car?’ ‘Yeah, because someone wants you to have a car!’ and it is such a big part of the national economy, so the politicians are in there also, because the car industry ‘OMG do you want all these people not to have jobs?’ you know? So everything is so connected”

The only exception among the informants appeared with Interviewees 6 and 7, who perceived a bigger threat from other cyclists rather than from car drivers. This finding confirms another theory previously illustrated, namely that there is a relation between the initial level of group identification and the members response to threat to that identity (Spears, Doosje and Ellemers, 1997). As not every-day
cyclists, their difficulties were more related to their condition of elderly and consequent confrontation with other, faster cyclists on the bicycle path.

I 6: “I think it is about the person because the bicycle drivers are very dangerous, some of them, it’s very difficult, and they do many things wrong, but, so, if it’s the same person sitting in the car it is really like those who have a dog, it’s just the person, not the dog, not the car, not the bicycle […] Here they might [be] annoyed because we’re going too slow”

As previous research found high and low identifiers to respond differently to self-perceived or public-perceived threats, these findings again confirm group identification as driver of action and support. In this specific case, despite being involved in collective action to promote cycling, the two interviewees didn’t identify as activists or expressed a strong connection with the identification of “cyclist”. Indeed, their engagement was driven and shaped more by an interest in the wellbeing of fellow participants of the activities, therefore focused on the health and social benefits of their engagement rather than having the defense of cyclists’ interests as main goal. Nevertheless, the latter are still of importance for the group as their recognition means the possibility for them to continue their activities as well as the possibility for everyone to join. Consequently, their actions are not focused on the “car vs bicycle” dichotomy, but rather on making sure that their activities - related to cycling - have the possibility to take place. By borrowing Spears, Doosje and Ellemers’ expression of “low identifiers” (1997), it is possible to state that this is why cars were not perceived as big of a threat as by other activists interviewed in the conduction of this research. On the contrary, collaboration with car drivers was perceived as possible and even fundamental for their own safety. The dichotomy was still present and perceived but felt, rather than as a threat, as a distinction to be aware of, awareness necessary in order to proper organize safe trips for all the members of their association.

I 7: “I think if we collaborate with the car drivers and you must have the eyes on the road, so you have the possibility as well, everyone has their own responsibility […] I think it’s very good if we are collaborative”

I 6: “Yes […] we’re together”

I 7: “Yes, the car look[s] at me, and the walking person.. yes.. we must do it together”

On the other hand, the interviewees whose action was driven by a stronger identification as cyclists and by the different values embedded in such definition (e.g. environment and equality) had stronger opinions and often perceived the car as a bigger threat not only to them as road users but also to the general well-being of the city and its dwellers. As previously noted in Section 7.2.1, Interviewee 5 highlights how cars represent an issue in different forms. In the same way, other informants describe a variety of ways and categories also outside the traffic context which are affected by the car presence.

I 1: “The bike solves a lot of other problems, not just climate, it is more about pollution, noise, taking space, that actually people have to exercise more: the electric car is not gonna solve the problem that we have to exercise”

I 2: “I think when you become a parent you realize how cities are not planned according to persons who walk around with a stroller or persons, yeah, or parents with small kids and want the kids to be able to play around in a safe environment”

This dichotomy does not necessarily translate into antagonism,

I 2: “So what we did was not only blockading the streets but also playing music and offering the car drivers cookies and coffee and try to talk to them and so on”

but it still represents a strong driver and direction for action.

I 11: “For me it doesn't matter as long as you’re biking, don’t fight against each other, fight against the cars or whatever but don’t fight against the biker, that’s why I wanted to put everyone together too”
I 2: “That is challenge, to have the kids go by bike, because they love it, but it’s the safety dimension of it, and that really annoys me [...] because I really want my kids to learn to bike and of course they bike, they have bicycles and so on, and I really would like to let them go with the bike wherever they want, but I can’t, so we have told them ‘ok you can go from home to there, that’s alright, you can go by bike that way, but you cannot go on those roads because those are dangerous’ and I don’t like myself telling my kids that this can be dangerous and you should be afraid of being on your bike”

For example, the car does not only stand for a contrasting urban mobility alternative, but it also represents a concern for the safety of whoever engages in another kind of transport practice.

I 2: “There is a relationship between the amount of cars and safety, I mean if we half the amount of cars it would be double, double safe basically, but the problem is that the development has been the opposite, that we have more and more cars and that’s why it is more dangerous today. When I was kid, I mean, there weren’t that many cars on the roads actually [...] and also cars, they can go faster. Yeah, I have an issue with that [...] and I can only see that reduced amount of cars and solved by better city planning, so we have separate bike roads, separate pedestrian areas, separated from the ordinary roads, and having areas in the city that are car free, that is of course the best”

I 3: “I think I have about ten cases that are quite similar, it’s car drivers who have been angry for a group of cyclists that are [...] blocking the way, and they are overtaking very close and going in front of them and push the break, and there are cyclists injured. Lot of cases.”

I 4: “I avoid the main roads, the roads that do not have the bike paths, I don’t wanna be on the streets with the cars and the busses. [...] If you’re on I the street where there is no bike path, you’re not really sure and I feel insecure, yeah, I don’t feel as safe if I’m not on those designated bike paths”

I 5: “It creates a war [...] because the car drivers are used that this is my space, and I think ‘no it’s not your space!’ ”

Within the analysis of the presented material, it is then possible to identify three main levels of identification in the car-vs-bicycle dichotomy, with a respective level of focus of the collective action on contrasting the car hegemony within the urban context. Among the respondents, the three main identification levels within such spectrum were characterized by:

1) those who perceive a real threat and hostility from the car drivers;
2) those who do not feel seriously mistreated from the car drivers, but are aware of the challenges of sharing the road, also from other people experiences, as well as aware of the benefits that a city mainly for cyclists would have;
3) those who see in the car drivers just other road users, identifying them as someone to cooperate with in order to have a better experience. Indeed, they do not perceive them as a threat for their cycling practice, but occasionally for their safety, hence the collaboration for a safer road.

7.2.3. The Black Sheep Effect

The identification in a group perceived by its members as a minority not only reinforces the dichotomy between bicycle and car, but these two dynamics together (group identification and the connected rivalry) also enhance the feeling of support and cohesion among cyclists and the commitment towards their engagement, as it can be observed by the reported quotes. At the same time, however, this feeling of group identity turns into sense of responsibility and condemnation when other cyclists misbehave, since such actions are perceived as undermining their already precarious condition, reputation and consideration from the other road users. Such dynamic has been previously studied by Marques,
Yzerbyt and Leyens and defined as the “Black Sheep Effect”, namely how “judgments about both likeable and unlikeable ingroup members are more extreme than judgments about outgroup members” (1988, p. 1). The results of my research build up on this concept, showing that the same dynamic is also replicated in the collective action framework and in the cycling environment. The Black Sheep Effect becomes then a further incentive for the individual to respect road and equipment rules, since their good behavior can be perceived as a strategy to defend their interests and give mutual support in the face of the criticism against the cycling practice.

I 4: “There are regulations on how your bike should be equipped, so just fulfilling those regulations, and a lot of people don’t [...] I have been annoyed by bikers too that do not have lights, you know, that are looking at their mobile phones at the same time that they are biking, or listening to music at the same time they are biking [...] I don’t say anything but I’m like ‘I can barely see you, you’re a biker, I’m a biker, and I can barely see you, especially when dark in the winter, so I feel a little bit annoyed, so I’m taking care I’m seen, I want you to also take care, because if I can’t see you, what about the cars and the busses? So that safety aspect I think a lot about”

I 3: “We have these racer bikes, it’s not very good because there are dogs, there are wheelchairs, there are, you know, old people”

I 5: “When something is unclear people don’t know how to behave. [...] sometimes you don’t have to, but you choose to ride where the cars go, and it irritates the cars, and so their behavior becomes maybe bad”

7.3. Shaping the city: how collective action has transformed the development of Stockholm

As illustrated in Section 2.4, previous research has focused on bicycle commuting, coming to the conclusion that “collective action can take place without organization or organizing” (Wilhoit and Kisselburgh, 2015, p. 573). By focusing on the commuting aspect of cycling, the paper comes to support the statement that even individual activities not officially coordinated through a collective can still aggregate to have an effect on the collectivity, consequently stating that “the material can constitute a collective, even without human, discursive recognition of it” (Wilhoit and Kisselburgh, 2015, p. 573).

By analyzing the result of the interviews, the statement can be confirmed also within the broader framework of cyclists’ collective action: all of the interviewees, regardless of their connection with an institution or organization, described the impact of their action on the development of the city, including infrastructure, policies and organizational perspective. The progress of Stockholm towards being a more bikeability city has been recognized by different official sources (Trafikverketet al, 2014b; Stockholm, 2018d; Civitas.eu, 2019).

7.3.1. Shaping the infrastructure

More specifically to the Stockholm context, collective action has been found to have shaped the development of the infrastructure of the city, for example by pressuring towards the improvement of the existing bicycle paths and their maintenance, by ensuring the presence of bicycle-friendly facilities, or by limiting the building of car-related infrastructure. Indeed, although all the interviewees still identified many challenges for cyclists in Stockholm (in particular, concerns around safety, traffic limitations and the necessity of dedicated bicycle paths have been raised), different examples of success have been mentioned, in relation to initiatives and projects born or shaped thanks to the engagement of the cyclists collectivity.
I 1: “They were going to cut down the trees because they needed more parking slots [...] we had a big fight to save the trees [...] it ended that I won actually [...] you cannot cut down old trees for parking place, it is not gonna help the [name of institution] [...] they didn’t like it very much [referring to how the institution reacted to her action], this is one reason why I stopped working there” - and when asked what she perceives she achieved with her actions from a more general perspective, the first thing she states is: “I think we have better cycle path, I think it is getting better”

I 5: “Things are happening, like, they have changed some streets, [...] they have changed, made bigger lanes and stuff.”

I 6: “Now you can take your bicycle to the new station!”
Q: “Thanks to the protest?”
I 6: “Yes!”
I 7: “I think if we didn’t do that maybe they [wouldn’t have] thought about it [...] and [now] there are elevators”
I 6: “I know other people, young people, going to university [...] they can take the bike with them; yes it’s very nice. So it’s not just for us”

7.3.2. Shaping policies

In regard to policies, collective action has been found to have increased its political engagement in the last years, gaining influential power.

I 1: “I think it is getting better and I have good contact with the politicians in Stockholm and some other close areas too, and they are listening [...] now everyone start[s] realizing the problem, [it] is much easier to talk about it now [...] it is easier biking and they start realizing” - stressing how, if for the past years it had been almost impossible to address certain concepts, now there are actually people thinking we should not have any cars in the cities.

Question: “About what has been done, do you feel you have reached your goals? Or that you are reaching them?”
I 2: “Not reached, no, but at least bicycling is.. it’s a political issue in a completely different sense today than what it used to, I think that is a progress as such. I think also that I have managed to lift bicycle issues within my party, for instance, so we talk much more about bicycling” - To this regard, the Informant 2 describes the recent changes not only within the party, but also in the interactions of the party with cyclists organizations, highlighting how the latter have radically changed their approach, becoming “highly political”: “10 years ago we didn’t really debate bicycling for a political perspective so, this is all new I would say”

I 4: [referring to the winter cyclist project] “Competition also among the different municipalities having their own winter cyclists programs”

I 5: “We have different projects. This is one, challenging thing, because like the organization works that we have to apply for money, or financing, and this is how we live, [...] and also it depends a lot on what is, what the politicians are like prone to give money for. For example, for a few years, there has been integration, so they want to give a lot of money for integration [...] We do projects, for example for integrating, so we have classes for learning how to cycle, if you are a grown-up, and then it is an integration project, because most people who don’t know how to cycle in Sweden are from abroad, where it is not so normal to bike”

I 5: [referring to a politician she collaborated with] “If we are the first to meet him, then we have like impact, more chances to get space, so try to be involved in as many relevant places as possible and creating spaces”
I 5: [referring to the organization she volunteers for] “Ten years ago [name of the organization] was small, old people biking, that’s it, like around nice areas, and now 10 years later it’s much more political, trying to meet the politicians and writing like articles and stuff and so the bike question is on the agenda. So I think a lot of small parts are making the cycling more attractive, it’s more, it is more important today and all the politicians are saying ‘yes! yes! we love biking!’”

7.3.3. Shaping organization and a growing network

Such influential capabilities have been found to be enhanced by a growing network generated by the collective action and its practitioners, both at an individual and organized-group level. Indeed, as presented in the background (put section regarding cyclists’ engagement), the variety and complexity of engagement around cycling results in different strategies to guarantee cyclists’ needs, from collaboration with institutions, promotion campaigns or collaboration and alliances with other organizations who share the same ultimate goal or aim to new political settlement (Balkmar and Summerton, 2017; Aldred, 2012, p. 103-104). This premise is found relevant also for the case study of Stockholm: regardless of whether interviewed people belonged to a variety of organizations with different focuses, all of them have positively valued the role of network and even expanded it recently, recognizing its importance for their efforts and the achievement of the set objectives. With the term network both the formal and informal connections are included; indeed, thanks to the use of interviews as research method, another interesting aspect that transpired is that most of the interviewees knew each other, either personally or by connection with other organization, events or people, consequently reinforcing the feeling of belonging, community, group identity and empowerment - as well as enhancing the effectiveness of their actions.

I 2: “I have invited them [referring to one of the cyclists organization present in Stockholm] for instance […] all the politicians in the committee, they briefed them with the action list”

I 5: “There is [name of organization], it’s also like an umbrella organization, trying to like create a network of kommuner […] how to improve, because in the different comunes biking is very small, it’s not so prioritize, but recently some kommun has started to have one person that works with bikes, so that is good, but also that person is very lovely, very lonely, and not so much support, so trying to strengthen their work, to be able to have more knowledge, stuff like that, so [name of organization] does this, […] so they’re not alone, like satelized, but they are working together”

Informant 5 then continues with mentioning the different association her organization has partnered up with in the past years, from simple partnerships to the organization of events. One of these is the association of which Interviewee 6 and 7 are part of, who mention the collaboration during decisive protest.

7.3.4. Shaping awareness

This inclination to dialogue and improved network, deriving from the dedication of cyclists and activists engaged in collective action, translates into the achievement of another objective which, even if not outlined as main goal of the different initiatives, still transpires as fundamental from the interviewees’ stories: today it is much easier to talk about the needs of cyclists. With this road user category now recognized and taken into account, the achievement of this goal facilitates the realization of all others. More specifically, it shapes the city in the sense that collective action is finally able to shift the development of the urban environment from a car-centric reality to a more comprehensive context, aware of the presence, importance and needs of a multitude of road users.
So I think a lot of small parts are making the cycling more attractive, it's more, it is more important today and all the politicians are saying 'yes! yes! we love biking!' ”

At least bicycling is... it’s a political issue in completely different sense today than what it used to, I think that is a progress as such”

7.4. Implications and future research

Despite the analysis being focused on the impact of cyclists’ collective action on the city and on its practitioners, the research question has been formulated with the word “people” specifically to allow the study not to exclude any person potentially affected. This choice permitted to observe an unexpected result, namely that collective action affects not only its direct practitioners, but also people who get in touch with them and their activities without being engaged in the latter. While previous research has already proved that the benefits of cycling from an environmental and economic perspective are shared among all urban dwellers, as explained in Section 2.3.2 (Bussière et al., 2010; Lindsay, Macmillan and Woodward, 2010; Taddei et al., 2015; Walsh et al., 2008; Woodcock et al., 2018), it had not been observed yet that the same dynamic applied for the feeling of empowerment found to be related with this specific kind of engagement, as well as the enhancement of values such as inclusion and equality related to it. This finding implies that the benefits of such engagement affect the society as a whole.

To this regard, the following opportunities for further research open: first, it would be interesting to observe if this and all other results apply also to different kinds of collective action, or if they are specific to the cyclists framework or to the case study of Stockholm; second, analyzing more in depth the impact on non-engaged people and their perception of collective action around cycling could improve the understanding of real and perceived benefits of such actions, or question these findings. Closely related is the achievement of an increased awareness, recognition and inclusion of cyclists’ needs, even when this was not identified as main goal of the organized actions. This result, emerged through the interviews, can represent an additional element of study to understand the non-calculated benefits of initiatives and practices such as cycling, consequently focusing on the enhancement of these types of engagement and the enhancement of sustainable practices. New opportunities might then open within two specific branches of sustainability: environmental sustainability and social sustainability. In particular, the connection between the two represents a key element that could be analyzed more in depth, since the results, especially the connection between the bicycle and values such as equality and inclusion, support the idea of a relation between environmental and social justice. Such connection has not been further analyzed within this research as it was not the aim of the study, but future investigation on this specific topic would bring of highly valuable contribution to the whole field of sustainable development, with the possibility to use the presented findings as starting point.

A more general ambition of this discussion and its implication is finally to set a possible first step towards understanding the dynamics and the potential of cycling and collective action, with the aim to improve both the current and future conditions and well-being of the urban ecosystem and its dwellers. Moreover, taken into account the positive impacts and the increased awareness on the issue, collective action can be considered and studied as a tool to promote other kinds of social interests as well.

However, it needs to be acknowledged that, despite the efforts in constructing the research as comprehensive as possible, the methodology presents some constraints. A more extensive study, that takes into account the key limitations illustrated in Section 4 and possibly overcomes them, would bring added value to the results and could evaluate further the different effects of collective action on both the city and the people, potentially taking more elements into account. Further research could indeed analyze changes in the development of the city from a quantitative perspective, such as the number of infrastructures for bicycles implemented after the action of cyclists’ organizations, or focus on an ethnographic or gender-based study of the people engaged. Furthermore, many interesting aspects transpired from the interviews, from the extensive sharing of episodes of road rage to the increasing use
of internet to organize action, but couldn’t be properly analyzed and included in the discussion due to the presented limitations as well as the aim to maintain a narrower focus for the benefit and quality of the research. It would be of great interest to direct the focus of a new study on the latter, expanding our understanding of both cycling practices and collective action.
8. Conclusions

The aim of this thesis has been to identify how collective action has affected its practitioners, to look at questions of group identification among cyclists, and to explore their effects on the city of Stockholm. The focus was therefore on if and how collective action and group identity could become an engine for individual and societal change.

The results not only answer positively to this question, but also confirm previous research findings in relation to dynamics typical of collective action and group identity, even when analyzed in a different context such as this case study. More specifically:

1) a. Collective action has been found to have an impact on its practitioners, enhancing a feeling of empowerment, freedom and community, thanks to both the achievements consequent of their engagement as well as the overcoming of the everyday difficulties related to cycling.
b. The resulting empowerment, together with the promotion of other values such as equality and inclusion, have been found to affect also non-practitioners, benefiting the society as a whole.
c. The bicycle has then become a symbol not only of empowerment but also of freedom, as it is perceived as a flexible, affordable, efficient and inclusive tool.
d. Such intrinsic inclusiveness, equality and socialization elements of this sustainable urban mobility alternative enhanced a community feeling that led to a stronger group identification.

2) a. Cyclists’ group identity has in turn shaped collective action. Indeed, the strong dichotomy and frequent conflict between cars and bicycles deriving from such identification - strengthened by the perception of being a threatened minority among the categories of road users - represents a decisive motivating force for action, leading cyclists’ collective action to focus on gaining recognition of their needs as a contrast to the car hegemony in the city.
b. However, consistent differences were found between high and low identifiers with the cyclist’s group identity, in the way they both responded to self-perceived or public-perceived threats, in levels of engagement and in judgments about other members of the same group identity, supporting the theory of the Black Sheep Effect.
c. Moreover, the recognition of a spectrum allows one to place the respondents of this specific case study on a scale of three different degrees of group identification in relation to the car vs bicycle dichotomy.

3) a. Concerning specifically the case study of Stockholm, collective action has been found to have shaped the development of the city in regard to infrastructure, policies and organization, also thanks to a growing network and political engagement of the different actors and organizations involved in the collective action.
b. The resulting increased awareness and recognition represent a core starting point for the achievement of future goals.

However, it needs to be acknowledged that, despite the efforts in constructing the research as comprehensively as possible, the methodology has some limitations. A more extensive study, that takes into account the key limitations illustrated in Section 4 and possibly overcomes them, would bring added value to the results and could evaluate further the different effects of collective action on both the city and the people, potentially taking more elements into account.

Other relevant elements emerged from the results that could be considered for future studies, allowing for example a more extensive quantitative and qualitative research on the different aspects emerged from the interviews not considered due to the research focus and the methodology limitations; investigation on the effects of collective action on non-practitioners and the difficult-to-calculate benefits of collective action initiatives and cycling practices, consequently focusing on the potential of
the enhancement of these types of engagement and of the enhancement of sustainable practices; the connection between environmental and social justice; finally, investigating whether or not the results of this research apply outside of the Stockholm and/or the cyclist framework could be of key value to understand whether collective action and group identity can be considered as engine and tool for people to change and to promote change in different contexts as well.
9. Acknowledgements

The development of this thesis, from its first conception to the final dot, would not be possible without the extensive and important support of different people. Therefore, I would like to take this opportunity to deeply thank all of them.

In particular, my gratitude goes to my supervisor Brian Palmer, who guided and inspired me throughout the whole project, and whose enthusiasm and dedication I will always take as example.

Many thanks go to my subject reviewer, Minoo Koefoed, whose precious advice became cornerstone for the thesis.

I am very thankful to the study counselor for this master program, Amanda Johnson, and the course coordinator, Małgorzata Blicharska, whose constant supervision has represented one of the greatest support.

Thank you also to my examiner, Ian Snowball, and to my opponent, Andreas Ekvall, for their important feedback.

Finally, I would like to deeply thank all the people interviewed and who showed interest to the project: their stories, energy and commitment not only made this study possible, but also represented for me an inspiration.
10. References


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Research questions and related findings

Annex I: Table of the results of the interviews

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<thead>
<tr>
<th>Interviewee</th>
<th>Research Question</th>
<th>Related Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>How do you feel about cycling?</td>
<td>I feel like a free bird when I'm cycling.</td>
</tr>
<tr>
<td>II.</td>
<td>What are the benefits of cycling?</td>
<td>Cycling helps me to be more productive.</td>
</tr>
<tr>
<td>III.</td>
<td>What are the challenges of cycling?</td>
<td>I struggle with the weather sometimes.</td>
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<tr>
<th>Interviewee</th>
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<th>Related Finding</th>
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<tbody>
<tr>
<td>I.</td>
<td>What do you think about the environment?</td>
<td>I think it's important to protect the environment.</td>
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<tr>
<td>II.</td>
<td>How does cycling make you feel?</td>
<td>I feel happy and energized when I cycle.</td>
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<tr>
<td>III.</td>
<td>What do you think about the future of cycling?</td>
<td>I think it's important to continue promoting cycling.</td>
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Interviews

Group identity and dichotomy

"One is a motorcyclist, one is a motor car driver, and one is another kind of person who is not involved in biking at all." This happens frequently. [...] you can always share experiences with this is a really big thing because I'm always trying to show people how it is, and you can sit there and talk about these things or you can go around and sit in a café... but you have to sit there and talk about it. And that helps..."

"Sometimes I go riding together with other people... I find it's just a matter of being together. If you go for a group, it's very much... you talk to all these people, in a cycling café..."

"There's one who is a biker, and there's one who is a non-biker, and then there's a hundred people who are in the middle..."

"I think that we can do things outside the program, talking each other on Facebook..."

"Sometimes one drives outside the program, talking each other on Facebook,..."

"We made some direct questions where we sat down in some of the most affected (most city streets in Uppsala)... so we were a bunch of people, we made eye contact all the time, saying 'you know I'm... I'm gonna go straight ahead...' and you have to look at the road..."

"The difference between a car driver and a biker is that if you are a car driver, you... you are a member of a group, you... you can always... you can talk about..."

"I think that a car driver who never bikes loves the car more than... you know how you would be, probably annoyed with bikes..."

"I think that a car driver who never bikes hates bikes..."

"Sometimes we are the same person..."

"But I think it's very good if we are together..."

"The bike is like perfect, like, the key for so many questions..."

"If we collaborate with the car drivers and you must have the eyes on the road, you can have the possibility as well, that everyone has their own responsibility..."

"Sometimes you are the same person, and that is really important, meeting other people, because if you had a wife, and one day you were sitting in the car, and you have a friend..."

"Yes, yes..."

"Yes..."

"Yes..."

"Yes..."

"Yes..."

"Yes..."

"Yes..."

"Yes..."

"Yes..."
I think if we collaborate with the car drivers and... interviewees... development of the city of Stockholm?

Here are excerpts from the table of results of the interviews:

"I think we have better cycle path, I think it is getting better."

"The bike solves a lot of other problems, not just the climate. It's a very nice thing. It's not just for us, it's for everyone."

"I think it is about the person because the bike awareness are very important, some of them. It's very difficult and like the many things wrong, but you see it. The same person sitting in the car it's really like the road have a dog. It's just like person, not the road. If you have a dog, it's just for people that are barking because..."
### Shaping Policies

**Interviewees**

1. **I 1**
   - I think it is getting better and I have good contact with the politicians in Stockholm and some other cities. I am feeling that they are listening. I was sometimes almost impossible to address, for example, we are actually people thinking we should not have any cars in the cities.
   - We should have different projects. It is one challenge, though, because the organization works so that we have to apply for money or financing, so how we see it, I and also depends on what is when the politicians are like this is going money for the climate, I think that is also what we are trying to do, trying to get a lot of money for integration, other ways to get a lot of money for integration. We do projects for example for integrating, so we have classes for learning to cycle. If you are a grown-up and then it is an easier to talk about it now, [...].

2. **I 2**
   - The city centers, yeah, I think we are moving towards cities that will get rid of more and more cars.
   - I think that is a progress as such. I think also that I have a different sense today than what it used to, I think that is a progress as such. I think it is getting better and I have good contact with all the politicians in the committee, they briefed them with the action list.

3. **I 3**
   - There were these people who [referring to one of the cycling organizations] are in the political perspective so, this is all new I would say.
   - We have different projects. It is one challenge, though, because the organization works so that we have to apply for money or financing, so how we see it, I and also depends on what is when the politicians are like this is going money for the climate, I think that is also what we are trying to do, trying to get a lot of money for integration, other ways to get a lot of money for integration. We do projects for example for integrating, so we have classes for learning to cycle. If you are a grown-up and then it is an easier to talk about it now, [...].

4. **I 4**
   - I think more and more people realize how silly it is to have lots of space to roads and parking lots, so at least in the bikepath, but they take up a lot of space and, so at least in the bikepath, at least they have a lot of space.
   - We should not have any cars in the cities.
   - We should not have any cars in the cities.

### Shaping Organization and a Growing Network

5. **I 5**
   - There were these people who [referring to one of the cycling organizations] are in the political perspective so, this is all new I would say.
   - We have different projects. It is one challenge, though, because the organization works so that we have to apply for money or financing, so how we see it, I and also depends on what is when the politicians are like this is going money for the climate, I think that is also what we are trying to do, trying to get a lot of money for integration, other ways to get a lot of money for integration. We do projects for example for integrating, so we have classes for learning to cycle. If you are a grown-up and then it is an easier to talk about it now, [...].

6. **I 6**
   - Things have evolved very easy, it is a lot easier to talk about it now, [...].
   - Things have evolved very easy, it is a lot easier to talk about it now, [...].

7. **I 7**
   - Some people have realized how easy it is to cycle and other people have realized how much it is different.
   - Some people have realized how easy it is to cycle and other people have realized how much it is different.

### Shaping Attitudes

8. **I 8**
   - Things have evolved very easy, it is a lot easier to talk about it now, [...].
   - Things have evolved very easy, it is a lot easier to talk about it now, [...].